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SCHEDULE 11—WOOL AND MANUFACTURES OF

BRIEF AND DISCUSSION

BY THE

RECORDED WOOLEN MANUFACTURERS' ASSOCIATION

AT THE

HEARINGS

BEFORE THE

COMMITTEE ON FINANCE

UNITED STATES SENATE

SIXTY-SEVENTH CONGRESS

SECOND SESSION

ON .

H. R. 7456

AN ACT TO PROVIDE REVENUE, TO REGULATE COMMERCE
WITH FOREIGN COUNTRIES, TO ENCOURAGE THE
INDUSTRIES OF THE UNITED STATES,
AND FOR OTHER PURPOSES

DECEMBER 14, 1921



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(Issued by the Carded Woolen Manufacturer's Association, Boston, Mass., Feb. 6, 1922.)

Senator Smoot and "Scoured Content"

(Extract from the Senate Discussion of Schedule K on June 8, 1909.)

Mr. Smoot:—"The reason is that it is absolutely impossible of administration. That is one objection. Another is that to administer it every pound of wool that comes into this country would have to be scoured. . . . Every manufacturer of woolen goods first wants to assort his own wool, and the success or failure of a woolen mill many times depends on the assorting of wool. . . . This amendment is impossible of administration. Take one fleece of wool; I can take out of one fleece of wool five grades of wool. Who is going to administer the provision? Is it going to be assorted at the ports of New York or Boston, or whatever port it enters into the United States? Is it going to be scoured there? . . . I will say again, I am positive that it cannot be administered successfully, and no manufacturer in this country would approve of such a plan. . . . No one can tell just what the wool shrinks until it is scoured, and then there are not two men who shrink wool who will get exactly the same result. If it was shrunk in New York port it may show one result. If it was shrunk in Boston port it may show a different result. It depends on how the wool is scoured and it is impossible to tell the shrinkage until it is scoured."

Answering the question whether he would prefer a "scoured content" duty if it were capable of administration, Senator Smoot said: "So far as that is concerned, I wish to say that I do not want to take into consideration or pass an opinion upon a proposition that is absolutely impossible to carry out." [Congressional Record, June 8, 1909. Page 2953.]

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THIS INTERESTS YOU

This pamphlet deals with a question that affects the welfare of every man, woman and child in the United States,—the question of what duties shall be placed on wool and wool products from which clothing and articles of wool are made.

In advocating the only right way to assess these duties,—that is, on value,—and in exposing the evils resulting from the wrong methods of the past and those proposed for the future,—that is, involving specific duties,—we seek a settlement of the question in the interest, not only of the carded woolen industry, but of the American people, for whom wool clothing is a necessity of life.

The pamphlet gives :

1. The brief presented by our association, pages 3346-3361
2. The oral discussion before the Committee on Finance, pages 3305-3324 and 3366-3369.
3. A report on the experience of France in testing wool for shrinkage during the World War, illustrating the impracticability of a "scoured content" duty on wool, pages 3362-3366.
4. An analysis of the Payne-Aldrich Schedule K, pages 3324-3338.
5. An article on "The Tariff on Wool and Wool Goods" pages 3338-3342.
6. An article on "How Much Wool to Make a Pound of Cloth"? pages 3343-3346.

We ask everyone whose hands this pamphlet reaches, to read it carefully and file it for reference.

CARDED WOOLEN MFRS. ASSO.

February 3, 1922.

Boston, Mass.

STATEMENT OF MR. SAMUEL S. DALE, CARDED WOOLEN MANUFACTURERS' ASSOCIATION, 67 MILK STREET, BOSTON, MASS.

MR. DALE. Our association is composed of manufacturers of yarn and cloth by what is known as the carded-woolen process, as distinguished from the worsted process. The manufacturers who compose this association are widely separated both by geography and by interest, being in no combine and being financially independent of each other. They are located in Wisconsin, Ohio, Kentucky, Maryland, Pennsylvania, the New England, and other States. Their combined capital is \$13,028,000; their annual product is \$27,281,000; annual wages, \$6,936,989. They operate 1,362 broad looms, 305 narrow looms, 120 knitting machines in connection with the carded-woolen processes, 449 set of cards, and 183,278 spindles.

They ask that Schedule K be revised on a straight ad valorem basis; that the duties be ad valorem on wool, wool by-products, reclaimed wool, partly manufactured goods, tops and yarn, and on cloth. They ask this because any specific duty on products varying so widely in value per pound is necessarily an unfair duty, discriminating in this industry against one class of manufacturers and favoring another class, while at the same time placing a very heavy burden on the American people by reason of its acting as an embargo on low-priced materials.

The specific duty on grease wool has been so thoroughly discredited in years past that it is not necessary to spend very much time in demonstrating its character now. I will, however, give one illustration taken from several that are to be found in the brief we will present.

At the London wool auction on March 12 to 17, 1914, 35,000 bales of grease wool were sold, this being about the last sale before the war broke out. The 11-cent duty if applied to this wool would have given ad valorem equivalents varying from 36 per cent on the higher-priced wools to 147 per cent on the low-priced wools; if the 15-cent duty had been applied to the same wools, the variation in the ad valorem equivalent would have been from 49 per cent to 200 per cent.

These high duties necessarily act as an embargo. When you place a specific duty on wools varying so widely in value, you in effect say in your law that wools over a certain value shall not be imported. And the wools that are thus shut out are well adapted for warm, durable, and in every way serviceable clothing for the American people.

The effect of the specific duty on grease wools is to exclude the heavy-shrinking wools, because the value of grease wool depends largely upon the amount of grease and dirt clinging to it, and which is removed by the first process of scouring. The more grease and dirt that is attached to the fiber naturally the less is the grease wool worth per pound.

Among the wools excluded by a specific the carded woolen manufacturers find a large part of the raw material adapted for their needs. The carded woolen mills find their raw material largely in the form of heavy-shrinking wools, while the worsted mills have found their raw material largely in the form of light shrinking wools. These conditions account for the discrimination and the special privilege that a specific duty on grease wool creates between the two great branches of the wool manufacturing industry. If a wool is light and shrinking, if there is very little grease and dirt clinging to it to be scoured away and not used for making cloth, a duty of a certain number of cents per pound is equal to a lower duty per scoured pound than when there is a large amount of grease and dirt on the fiber. That is self evident.

A specific duty on grease wool deprives the American people of a large part of the raw material that is needed for the manufacture of clothing that they wear on their backs, and for the carpeting under their feet.

Senator LA FOLLETTE. Will you describe a little more fully the class of wool that is thus excluded?

Mr. DALE. It is the wool of shorter fiber. Carded woolen machinery is adapted for converting the shorter fibers into yarn. It is carded and spun, whereas by the worsted process the wool is combed. The wools adapted for carded woolen goods are largely heavy shrinking.

Senator LA FOLLETTE. Where are those wools chiefly obtained?

Mr. DALE. From South Africa, South America, Australia, and New Zealand. From nearly all parts of the world where wool is grown.

A specific duty on grease wools has had another effect: It deprived the woolgrower of the protection that he expected. He has been led to believe that the 11-cent duty on grease wool gave him a protection of 33 cents per scoured pound on the theory that it took three pounds of grease wool to make one pound of scoured wool. As a matter of fact, there is a large amount of wool of which it takes only two pounds of grease wool, and even less to yield one pound of scoured wool. Some wools shrink only 20 per cent; other wools shrink as high as 80 per cent. One hundred pounds of the first-named wool yields 80 pounds of scoured wool, while a hundred pounds of the last-named wool yields only 20 pounds of scoured wool.

Under the 11-cent duty on grease wool the tendency was to import the lighter shrinking wools. No wool was imported under this 11-cent duty that shrunk much more than 50 to 55 per cent, while a large quantity of it, much of it known as cross-bred, shrunk 30 to 33½ per cent. Instead of getting under an 11-cent duty on grease wool a protection of 33 cents per pound scoured, the woolgrower received a protection of about 18 cents per scoured pound; on some wools much less than that. The average was probably 18 or 19 cents a pound.

We come now to the specific duty on scoured wool. The value of grease wool depends upon two main factors. One I have just mentioned, the amount of loose material clinging to the fiber, and which is washed away. The other factor is quality, and by "quality" I mean the length of the staple, fineness, elasticity; in fact, the spinning

qualities; all of the characteristics that go to make up the value of wool for manufacturing purposes.

Scouring wool eliminates only one factor, the loose grease and dirt. There still remains the other factor of quality. These two factors are so inextricably mixed and criss-crossed that when the grease and dirt are removed from wool there is practically as wide a range of values as prevailed before scouring. Take, for example, the 30,644 bales of scoured wool sold in London in 1911. The 33-cent duty applied to that wool gives ad valorem equivalents ranging from 54 per cent to 412 per cent.

Senator McLEAN. I was wondering whether the Fordney bill did not put a limit on the ad valorem?

Mr. DALE. Yes, sir; and I will come to that. But I want to make sure that our position is made clear in regard to the iniquity of specific duties on wool. The ad valorem limit in the Fordney is an admission that we are right in regard to this matter, and that the duty on wool should be ad valorem. I want to make clear the iniquity of specific duties on wool.

The 30,644 bales of scoured wool, sold in London in 1911, with the 33-cent duty applied, show variations in the ad valorem equivalent from 54 per cent to 412 per cent. The man who imported \$1,000 worth of the highest-priced wool would pay \$540 at the United States customhouse. The man who was fool enough to import a thousand dollars' worth of the low-priced wool would be required to pay \$4,120 to get it through the customhouse.

Senator GOODING. Will you state the price that scoured wool in London sold for that paid a duty of 400 per cent?

Mr. DALE. The brief gives that, but I shall have to calculate it mentally.

Senator GOODING. If it is in the brief it is all right.

Mr. DALE. It would be about 8 cents a pound.

Senator GOODING. For scoured wool?

Mr. DALE. For scoured wool.

Senator GOODING. How much would that be worth in the grease?

Mr. DALE. I do not know what it shrunk, because it was scoured in Australia and brought to London and sold at auction in the scoured state.

Senator GOODING. Do we grow any of that class of wool in America?

Mr. DALE. I should have to ask you, Senator, because you know so much more about wool than I do.

Senator GOODING. I am sure we do, and I am sure the price that that wool sold for in London would not pay the freight on it from a western State to Boston.

Mr. DALE. At the sale in London on March 12-17, before the war broke out, 6,359 bales of scoured wool were sold. The 33-cent duty applied to that wool gives ad valorem equivalents varying from 47 per cent to 234 per cent, while the 45 cents duty—the emergency duty—gives equivalents from 64 per cent to 319 per cent.

The Fordney bill provides for a scoured content duty. I have just shown by these figures taken from one of the largest wool markets in the world that a scoured content duty would be an iniquitous duty, a very burdensome duty, not only to manufacturers but to the consumers; that it would be thoroughly unjust.

I want now to point out that its administration would be impossible. I could give that as my opinion based on my experience in handling wool, and I think that any one here or elsewhere who has ever had any experience in manufacturing wool into cloth would agree with me that it is impossible to administer a scoured content duty with the precision, with the freedom from the possibility of fraud and error, that is required in administering a tariff law. But I am going to give you some evidence that I have been fortunate enough to secure within the last few months, and which I think will be conclusive to all of you.

When the war broke out France was short of wool. The French Government commandeered all of the wool in the country in the hands of dealers and growers. The Government fixed the price at 5 francs per kilogram, scoured content. And for four years the French Government was up against precisely the same problem that the United States Government will be up against if a law is enacted placing a duty on the scoured content of wool. Several months ago I asked Robert Dantzer to give me a statement on the experience of France in testing this wool. Robert Dantzer was then superintendent of a mill at Larroque-d'Olmes, Ariege, France, down near the Apennines. He has had a long experience in manufacturing and served for several years as professor in a textile school. He is a practical manufacturer of woolen and worsted goods. During the war he was placed in charge of the testing of textile materials, particularly wool. So that he had personal charge of the testing of wool for the purpose of applying this fixed price per kilogram, scoured content. to the wool that the French Government took over. I have here his report in French and my translation of it. I will give you the original, if you want it, and will file the translation with you.

Mons. Dantzer states that they tried three methods of testing the wool to determine its scoured content. The first method was by hiring experts, the best experts they could get, to go around and view the wool and give their opinion of what it would yield. The Government found that this method was subject to serious errors. They could not rely on it at all, and gave it up.

The next method they adopted was to draw a small sample of 5 or 10 kilograms from each lot and have it tested in what they call conditioning houses, to determine its scoured content. He reports that invariably they found that these tests of small lots indicated a yield higher than the yield that was obtained when the wool was scoured at the mill.

Finally after trying these two methods and giving up both of them, they found that the only method by which they could get a result that was approximately accurate was to scour a considerable quantity of each lot.

The illustration that he gives shows that one bale out of 16 was tested. In another part of his report he states that no test could be relied on, unless they scoured a thousand kilograms, 2,204 pounds of the wool. Taking the moderate illustration that he gives, 1 bale out of 16, if that method had been in force in 1919, the United States Government would have been compelled to scour and test nearly 30,000,000 pounds of wool, composed of an innumerable number of lots varying widely in weight. It would have been necessary to do

this either in Government conditioning houses or at the mills, and in every case under the supervision of the sworn officers of the law.

It is only necessary to state such requirements in order to show the impracticability of a scoured content duty on wool.

I have referred to the specific duty on grease wool. It is easily administered; it is easy to cut a man's head off, but it is not very conducive to health. The specific duty on scoured wool we find is open to just as grave objections in regard to the variations of the ad valorem equivalents, and furthermore, that it is impracticable. This brings us to a wool duty based on value. No matter whether it is the grease, washed or scoured, the market value automatically reflects its adaptability for making clothing for the people. That explains why an ad valorem duty is the only fair duty. A duty equal to a certain part of the market value bears equally on everybody that pays the cost of the material.

Senator GOODING. May I ask you how you find that value? How is that value ascertained?

Mr. DALE. Wool is a commodity whose value is well known in the markets of the world, and I doubt very much if any undervaluation of wool could exceed 5 or 10 per cent without gross collusion and fraud.

Senator GOODING. You must find the scoured content, however, of a pound of wool in order to know the value.

Mr. DALE. That is true, Senator Gooding. When the prospective buyer looks at grease wool, he forms an opinion as to how much it will shrink. That is one of the uncertain elements in buying and selling.

Senator GOODING. Nevertheless, it is true, is it not, that every pound of wool in the world is sold on its clean content, in order to establish value, unless it is scoured?

Mr. DALE. I would modify that by saying that it is sold on the two bases I have mentioned—one you have mentioned, the scoured content; the other is the quality.

Senator GOODING. And one is the market value, and the other is the clean content there is in the wool?

Mr. DALE. Why, no. The market value is the result of both factors—both the shrinkage and the quality, Senator. You can have two lots of wools, one shrinking two-thirds and the other one-third; they are not worth the same price scoured, unless the quality is the same.

Senator GOODING. Yes; I understand that. But in all wool, regardless of its grades, before you can even set a price upon it you must find out about what it is going to shrink, and then you can fix the market value of that grade of wool; that is the first step?

Mr. DALE. Senator, I really think that statement should be modified by saying that before you can fix the market value of wool you must determine not only its shrinkage and yield, but you must also determine its quality, its adaptability for manufacturing purposes.

Senator GOODING. I agree with that, perfectly. But you must eliminate the dirt that you speak of?

Mr. DALE. Oh, certainly.

Senator GOODING. And grease and all those things?

Mr. DALE. Certainly.

Senator McLEAN. You ask to have this ad valorem duty imposed upon wool in the grease?

Mr. DALE. Upon all kinds of wool unwashed, washed, and scoured, upon wool by-products, and upon reclaimed wool.

Senator McLEAN. We will assume that you are importing a lot of wool in the grease. I understood you to say that it was very difficult to ascertain the value of that wool before it is washed.

Mr. DALE. I do not say so. I say that the value of wool is very well known in the markets of the world.

Senator McLEAN. I was assuming that, based upon your statement, that several methods were tried for ascertaining the value of a lot of wool, and that they were unsatisfactory; that it was a very difficult thing, unless you took a large portion of that wool and washed it?

Mr. DALE. Yes; to determine the scoured content, not the value.

Senator McLEAN. Assume that we have got an importation, and the grower of the wool or the exporter is inclined to undervalue it. What are our appraisers going to do about that lot of wool, to find out its precise value?

Mr. DALE. Well, if the appraisers are competent they will be able to determine the value; they first have the invoice as a basis.

Senator McLEAN. Have they not got, according to your own statement, to wash a large percentage of that wool?

Mr. DALE. No; I do not think so, because the values of wool in the markets of the world are determined by people who make it their business to buy and sell; it is their life work. They buy wool largely at auctions. Before the war these auctions published lists of their sales, giving identification marks and price of each lot sold. Wool became so high in price during the war that the British Government discontinued the publication of these lists for fear that the Australian woolgrowers would become dissatisfied by reason of the spread between the enormous price in London and the low price which the Australian grower was getting. Under normal conditions the publication of these reports will be resumed. The wool dealers of the United States will have these reports showing the price at which each lot was sold at public auction in Australia and London, auctions that are above suspicion.

Senator GOODING. That is, as to the shrinkage of the wool?

Mr. DALE. No; as to the value per pound, which involves both the quality and the shrinkage.

Senator GOODING. Well, that is the point I am making, while it takes the shrinkage, an important factor, of course, is the grade of the wool.

Mr. DALE. It certainly is an important factor, but after you eliminate the shrinkage, you still have these wide-spreading values, which make a specific duty as iniquitous on scoured content as it is on the grease weight.

Senator GOODING. That depends entirely on the fashions of the country?

Mr. DALE. Yes; fashions change; they go one way, and then they go the other.

Senator GOODING. I have seen the time that grease wool which you are discussing was higher than fine wool and brought more money.

Mr. DALE. Some fine wools are short and low in value and adapted for carded woolen processes. It is not only the coarse wools that are low in price. Let us take two lots of wool, each worth \$100,000, one of them 50-cent wool, the other \$1 wool, scoured. Put the 33 cents per pound scoured on both lots and we get on one lot of wool a duty of \$66,000, 66 per cent; on the higher-priced wool we get a duty of \$33,000, 33 per cent.

Suppose that wool comes in subject to an ad valorem duty of 50 per cent and, by collusion and fraud or some kind of skullduggery in the customhouse, it is undervalued 10 per cent, which can only happen by corruption or neglect: The Government loses \$5,000.

Here, under the 33-cent duty, assuming that the \$66,000 duty is the correct duty, the other lot is brought in for half that amount, \$33,000. So we have legalized an undervaluation of 50 per cent, or a loss of \$33,000, as compared with the illegal undervaluation of 10 per cent, or a loss of only \$5,000.

The Fordney bill puts 16 cents a pound on noils. I went into the Boston market and picked up a lot of samples of by-products a few months ago when I expected this hearing was coming on. The detailed list is in the brief, but boiled down it shows that the 16-cent duty on noils—the short fibers combed in the worsted process—gives a range of ad valorem equivalents from 31 per cent to 59 per cent.

Thread waste, subject to 14 cents per pound, gives a range of ad valorem from 40 per cent to 87½ per cent. Garnetted stock, on which a 20-cent duty is placed, gives a range from 26 per cent ad valorem to 100 per cent.

These high duties can not be justified from any standpoint, whether from the standpoint of justice to the manufacturers or to the consumers, all of whom you represent.

Senator McLEAN. What percentage of the American-grown wool is the high grade, and what percentage is the low grade?

Mr. DALE. I would not want to answer that question, Senator. I could not tell you. Wools vary widely in quality and by gradual steps. I think it would be quite difficult to answer briefly in any event, because the grades vary from coarse to fine, with variable quantities of each. The statistics of wool are very imperfect in this country, and I question whether any answer that was given to that—

Senator McLEAN (interposing). Does the proportion of high-grade wool in this country compare well with that of the imported product?

Mr. DALE. The proportion of it?

Senator McLEAN. Yes.

Mr. DALE. Well—

Senator McLEAN (interposing). Under your specific duty, as I understand you, the protection makes the importation of low-grade wools unreasonable.

Mr. DALE. Cheap wools—the low-priced wools?

Senator McLEAN. Yes; and I was wondering whether the large percentage of American-grown wool would get that protection or not.

Mr. DALE. Oh, that is the point? Well, I really think that when we come right down to it, we can not divide the clip of this country into grades of wool and determine, with even approximate accuracy,

what protection each one is getting under any particular duty. I do not think that is possible.

Then there is reclaimed wool, a very useful product, necessary for clothing the human race. I obtained samples of this material, and have given you the details of them in this brief.

Senator DILLINGHAM. What do you mean by "reclaimed wool?"

Mr. DALE. When you get through wearing your suit, they tear it up.

Senator DILLINGHAM. Oh, I understand—shoddy?

Mr. DALE. Yes; shoddy. The Fordney duty on the grades given in my list varies from 22 per cent to 400 per cent. Reclaimed wool is a very useful product for making clothing. It is a very much abused product, and unjustly so. A wool fiber is as worthy of respect after it has been converted again into a condition for manufacturing as it was in the first place, because its value depends upon its length, upon its spinning qualities, and its adaptability for making cloth; and all of those factors combined are automatically reflected in the price per pound.

Senator McLEAN. Can this reclaimed wool be spun?

Mr. DALE. Oh, indeed, it can. But it is generally mixed with wool and cotton. Goods may have been made of all shoddy, but I do not know as I ever saw any; I think it is a negligible amount.

Senator GOODING. The duties in the Fordney bill would be 22 to 400 per cent?

Mr. DALE. Yes.

Senator GOODING. On what?

Mr. DALE. On reclaimed wool, wool rags, and shoddy.

Now, we come to that bone of contention, the compensatory duty on goods. A compensatory duty is a duty placed on the manufactured product which is equal to the amount of the duty that was imposed upon the wool that went into that product. This is done that the American manufacturer may be placed on equal terms with his foreign competitor, so far as the purchase of raw material is concerned. In order to be compensatory it must be equal to the wool duty. I do not think we need spend much time in demonstrating that it is impossible to attain that equality if the duty is specific, on the grease weight. There is no way of doing it, because you can not incorporate in a law all of the infinite number of ratios that exist between a pound of cloth and the weight of the wool that went into that cloth. The variable shrinkage in scouring prevents the fixing of such a ratio. In addition, there is a variation, although not so great, in the shrinkage between the scoured wool and the finished cloth.

For years we had various ratios incorporated in the old schedule K, and the most famous of them was the "4 to 1 ratio." In other words, it was assumed that four pounds of grease wool was required to make one pound of cloth. Consequently, with a duty of 11 cents per pound on grease wool, a so-called compensatory of 44 cents per pound was placed on cloth.

I want to dispose of that adjustment in a very few words by referring you to five samples of wool goods made by me, and on which I have calculated the compensatory duty of 44 cents per pound of cloth and also the 11-cent duty on the wool that went into each of these five fabrics.

Senator McLEAN (interposing). Are those representative samples?

Mr. DALE. Oh, I would not call them "representative." They represent a wide range of fabrics, but I would not care to present them here as representing the product of this country.

Senator McLEAN. Oh, no; I did not mean that.

Mr. DALE. No.

Senator McLEAN. But they are representative of their class; they were not manufactured by you especially to arrive at a conclusion to be presented to me here?

Mr. DALE. Oh, no; they were manufactured years ago. What is representative about them is the variation in the shrinkages.

I base this calculation on 1,000 pounds of each fabric, subject to a compensatory duty of 44 cents per pound, or \$440. One of these fabrics showed that the 11-cent duty on the wool that went into 1,000 pounds of cloth amounted to \$39.27; the compensatory duty was \$440. That fabric was made of a mixture of wool and cotton, but the old 4 to 1 ratio applied to cotton as well as wool when they were mixed together.

The second sample showed a compensatory duty of \$440 on 1,000 pounds of cloth, but the actual compensatory required was \$118.69.

The third fabric shows the actual compensatory required to be \$209.88, whereas the compensatory imposed was \$440.

The fourth fabric shows the compensatory required to be \$254.21, but the compensatory imposed was \$440.

Senator GOODING (interposing). Just a minute, there, Mr. Chairman. You say some of these fabrics were made part of cotton?

Mr. DALE. Two of them were.

Senator GOODING. Do you know what the other three were made of?

Mr. DALE. Yes; I do; because I made them myself. They were made of mixtures of all wool.

Senator GOODING. Reworked?

Mr. DALE. No; new wool. I can give them to you with shoddy in them that will show about the same variations; but there is the difficulty in calculating the compensatory for shoddy, on which there was an enormous specific duty which prevented the importation of the material. I took the new wool goods because the wool was coming in subject to the 11-cent duty.

Senator GOODING. You got the benefit of that cheaper material that went into it, did you not, as a manufacturer?

Mr. DALE. What cheaper material?

Senator GOODING. Of the cotton.

Mr. DALE. On these two fabrics, yes; and they were sold for a lower price.

Senator GOODING. But you got the protection, however?

Mr. DALE. I am not speaking about protection; I am talking about compensatory duty, in which there was the concealed protection.

We are not trying to cover up anything. We are not asking for any special privilege. We are not asking for any discrimination against any competitors. We are not trying to get a tariff here that will conceal anything. And that is why we are asking for a straight ad valorem tariff on wool and wool goods.

Now, as to a compensatory duty with the wool duty on the scoured content: If a scoured content duty on wool were practicable and if

it were just—and it is neither—it would be possible to put a specific duty on cloth that would balance approximately—not accurately, but approximately—a specific duty on a scoured content, because the variations in the shrinkage in manufacturing between scoured wool and finished cloth are not so wide as they are between the grease wool and the finished cloth. But as this scoured-content duty is impracticable and unjust, I am not going to pay any more attention to a compensatory duty on that basis.

I come now to the adjustment of the compensatory duty on an ad valorem basis: For years we have been told that this adjustment was impossible. I ask you to follow me through a few arithmetical calculations, which I will simplify as much as possible, while I demonstrate that the adjustment is not only possible but that the compensatory duty can be adjusted very accurately to what is required.

Suppose that we have here an English fabric, and over here [illustrating]—

Senator McCUMBER (interposing). May I ask you to pause here a moment?

Mr. DALE. Yes, sir.

Senator McCUMBER. You have reached a very important feature of the subject that you are about to deal with, and I think probably it would be better if we adjourn and take a recess and that you begin on that subject at 2 o'clock, if it is satisfactory to you.

Mr. DALE. That is all right. I will be on hand at that time.

Senator McCUMBER. The committee will stand at recess until 2 o'clock.

(Thereupon, at 1.10 o'clock p. m., the committee stood in recess until 2 o'clock this afternoon.)

AFTER RECESS.

The committee reconvened at the expiration of the recess.

Senator McCUMBER. You may proceed, Mr. Dale.

STATEMENT OF MR. SAMEUL S. DALE—Resumed.

Mr. DALE. Before I take up the question of compensatory duties I would like to refer briefly to two points, one of which I inadvertently passed over, the other of which two gentlemen have reminded me that I did not make quite clear.

The first one which I passed over was the objection to an ad valorem duty on wool, that it gave the least protection to the wool-grower when the most protection was needed; that is, when prices were lowest. That, in my judgment, assumes that an industry should be set apart and protected by law against the ordinary fluctuations of the market to which all other industries and the consumers are exposed.

We think that that would not be a fair arrangement, and that under ordinary conditions, under the ordinary fluctuations, the ebb and flow of markets, all of us should be exposed equally. When, as at the present time, following the Great War—

Senator GOODING (interposing). Mr. Chairman, I would like to ask the gentleman a question at that stage.

Senator McCUMBER. All right.

Senator GOODING. The fluctuation that occurs in prices is largely in the raw material. Your cost of production varies but very little; that is, there is not any wide or wild fluctuations. Your wages are about the same, usually, unless we have a great war; you have your machinery and your overhead remains about the same. So that this fluctuation that you speak of takes place in the raw material, not in the manufactured products at all.

Mr. DALE. I think that you are correct that the fluctuations do occur in the raw material, and I think you are mistaken in the assumption that the fluctuations do not occur in manufacturing.

Senator GOODING. Not to the extent, I am saying.

Mr. DALE. In manufacturing the cost of fabrics depends largely upon a full production, and in times of depression, when goods can not be sold, machinery can not be run at full capacity, overhead charges continue practically unchanged—many of them unchanged—none of them reduced in proportion to the production, and the cost per yard or pound consequently goes up. So that it seems to me if you were engaged in manufacturing and had the practical experience you would not be so positive that all of these fluctuations in the wool industry—

Senator GOODING (interposing). That was not my statement. I said that the greatest fluctuation did occur in raw materials. But it is true when you have not a market for your goods that you shut down your plant and, to a large extent, you get through with some of your overhead expenses at the same time.

Mr. DALE. An idle mill is a very expensive proposition. It involves a great loss, and a mill that is running on part production is also a very expensive proposition. You say that the fluctuations are larger in the wool industry than in manufacturing. I will not deny that, because I have not the figures to refute it, but my judgment is that the statement is subject to grave doubts.

I was about to state, when I was interrupted, that at a time like the present, following a great war, when all industries are subject to these abnormal conditions, Congress can properly be relied upon to apply emergency measures for correcting the extreme fluctuations in value which bear so heavily upon industries as they are bearing upon the wool industry. Congress has done that. But my reference to that objection to the ad valorem duty related only to the ordinary ebb and flow of market conditions. The other point which I was reminded of, since the adjournment, was my answer to Senator McLean in regard to the value of grease wool. I was told that I did not make it quite plain that the value of greasy wool in its greasy condition, before it is scoured, depends upon two factors, the shrinkage, which it will undergo when it is scoured, and its quality after it is scoured. If we have here a heavy shrinking wool offered for sale, the price per pound is automatically depressed by the fact that there is that proportion of material clinging to the fiber which will be washed away and not used for manufacturing purposes.

I do not know whether I made my meaning plain to you previously or not.

Senator McLEAN. You suggested that it was very difficult to ascertain the value of a large quantity of uncleaned wool without examining a pretty good percentage of the volume? -

Mr. DALE. Yes.

Senator McLEAN. And it occurred to me that under those circumstances it might be different for an appraiser to estimate the value of a large importation of wool.

Mr. DALE. That was a different point. I understood what your point was and stated that the value of the wool is determined in the markets of the world by men who have made it their life business to buy and sell wool. I also went into the explanation of the auction sales, which I do not think it is necessary to repeat now, sales that are above suspicion and where the prices are, in normal times, a matter of record.

Senator McLEAN. I think I understood your position to be exactly this, that while it was difficult to ascertain the exact value, yet experienced men could estimate to within 5 or 10 cents a pound.

Senator SMOOT. Five to 10 cents per pound?

Senator LA FOLLETTE. Percentage.

Senator McLEAN. Percentage of the value?

Senator SMOOT. If a man goes and buys wool and does not estimate any closer than 5 to 10 cents per pound he can not remain in business for any length of time.

Senator LA FOLLETTE. Nobody said that.

Senator McLEAN. Five to 10 per cent of the wool.

Senator SMOOT. That is what I mean exactly.

Senator GOODING. Mr. Chairman, I would like to ask the witness how close, in his judgment, can they estimate, and do they estimate, these experts who buy wool, to its real shrinkage that they find after scouring?

Mr. DALE. My experience corresponds with that of France, which I am going to place on file, that no matter what a man's experience in judging wool has been, if he is called upon to estimate the shrinkage of wools with which he has not been familiar, wools that come from all parts of the world, that he has not been accustomed to buying, his judgment will be subject to very great errors, no matter what his experience has been.

Senator McLEAN. Then, if that is so, are not our appraisers going to labor under that same disadvantage?

Mr. DALE. That is an administrative question, as to whether you can get competent men as appraisers who will perform the same function for the Government that the buyers do for their employers in the markets of the world.

Senator SMOOT. Senator, the way that would be done—it is not by being a judge of wool. They will take samples of the wool that will come in, and they will scour that wool, and there would not be any guessing on the scoured basis of the wool. If they make some mistake in taking a sample, there will be an error, but I can not think there will be any danger of making that mistake. But what Mr. Dale says in relation to the mere estimate as to the shrinkage of the wool—a man who has bought wool in a certain territory or in the United States and bought it for years, can tell you almost to 1 per cent of what that shrinkage of wool will be. If he is not able to do that, he has no right to buy wool for anybody.

But it is true that taking a wool from a foreign country, which the man has never bought before, nor ever scoured, nor had any experience with, he can not be as good a judge of that as he will be of wools he has been handling for years and years.

Senator McLEAN. Do you agree with that statement?

Mr. DALE. I agree with that statement; yes.

There is one point that I think would be well to bear in mind in estimating the shrinkage of wool. There is the eternal conflict between buyer and seller. The buyer will naturally estimate the shrinkage to be greater than it really is; the seller will be inclined to estimate that it is less than it is.

Senator McLEAN. Yes; but, as I understand you, that is for business reasons.

Mr. DALE. That is for business reasons.

Senator McLEAN. Both of the parties can estimate very accurately. They know and can know substantially the precise value of that wool, and they are there padding the price or subtracting for business reasons?

Mr. DALE. And the result of that conflict is the market value; and that, as I said, is normally a matter of record in the markets of the world. It is well known. I have compared, this morning, the possible undervaluation, under an ad valorem duty, with the legalized undervaluation that you will get under any specific duty.

Senator McLEAN. I understood you to say this morning that these French experts, who experimented extensively, found great difficulties in establishing the value of unwashed wool.

Mr. DALE. They found great difficulty in establishing the shrinkage of grease wool.

Senator McLEAN. And it was for that reason that it seemed to me that our own appraisers would meet with similar difficulties.

Mr. DALE. I can only repeat what I said a few minutes ago, that it is an administrative question for the Government to secure the same service in appraising the wool that the buyers and the sellers do in establishing the market value.

Senator GOODING. Mr. Chairman, I would like to ask Mr. Dale this question: Either on a specific duty or an ad valorem duty it will be necessary to make an estimate of the clean content of the wool in order to fix the ad valorem duty?

Mr. DALE. Not necessarily if you have an honest invoice.

Senator SMOOT. That is true if you have an honest invoice.

Senator McLEAN. If there is an opportunity to succeed in presenting a dishonest invoice, that is something we want to look out for.

Senator SMOOT. Senator, there is no way of arriving at the value of wool other than to know what the wool is going to shrink and what the quality of the wool is. I do not care who buys it or who sells it; that has got to be the value of that wool.

Senator GOODING. Absolutely.

Senator McLEAN. Of all grades?

Senator SMOOT. Any grades.

Senator McCUMBER. You all three agree upon that proposition?

Senator GOODING. I am not quite so sure Mr. Dale agrees on that.

Senator McCUMBER. Yes; he has repeated it several times that that was the basis in estimating the value.

Mr. DALE. In listening to you gentlemen I do not recall now anything to which I take exception, and I do not recall anything that conflicts with anything I have said.

Senator GOODING. Mr. Dale, in figuring the ad valorem duty, I understood you to say that one of the objections to an ad valorem

duty was that the Government could not find the honest duty of wool without scouring it.

Mr. DALE. I do not recall saying that. I produced this French evidence in order to demonstrate that it is impossible to administer a scoured content duty.

Senator GOODING. Yes; that is the point.

Mr. DALE. Not an ad valorem duty.

Senator GOODING. The point I wanted to make again is that whether it is ad valorem duty or specific duty, the Government must arrive at the clean content of a pound of wool before they can find its value in some way or another; that is the point I want to make clear.

Mr. DALE. To that I would reply as I did a few moments ago, that if the Government has an honest invoice, they have the market value; and it would not be necessary to test it on the scale that France found necessary during the war.

Senator McLEAN. Would it be difficult to apply the American valuation plan to your scheme of ad valorem duties?

Mr. DALE. As for the American valuation, I do not know what it is. I understand that this committee has quite a corps of Treasury experts engaged in finding out what it is. We are not taking sides for or against the American valuation, but we think that is a perfectly reasonable plan for us to wait until the Government which proposes to impose it informs us what it is.

All of these illustrations have been purposely based upon the foreign value, not for the purpose of advocating the foreign value or of opposing the American value, but because that is the basis upon which we have been brought up from childhood to base our calculations and our ideas of manufacturing and of wool values. I tried different formulas, seeking one that would make it possible to base some intelligible calculations on the American value, and I finally gave it up. But I do not want to cast any discredit upon American valuation at this time. I only state the reason why I made my calculations on this foreign basis.

I have demonstrated the impossibility of adjusting the compensatory duty properly when the wool duty is specific, based on the grease weight, and I passed over the compensatory duty based upon the scoured content because that duty is both unjust and impracticable.

Now we come to the compensatory duty on an ad valorem basis. Let us assume that we have here two fabrics just alike, one made abroad and one made in the United States; that this foreign fabric represents a cost of 50 per cent for wool and 50 per cent for all the other items that make up the value. In other words, that a dollar's worth of that cloth is represented by 50 cents worth of wool and 50 cents for conversion.

Let us assume that there is a duty of, say, for illustration, 10 per cent on the wool, and that the conversion cost in the United States is 10 per cent higher than abroad. We have increased each half of the foreign cost by 10 per cent, and increased the total cost by 10 per cent. So that an ad valorem duty of 10 per cent on the foreign fabric would raise the cost to \$1.10, equal to the American cost. Thus the ad valorem duty on the cloth would balance with scientific precision both the wool duty and the increase in the conversion cost.

This accurate adjustment would be obtained regardless of what the proportions of wool and conversion costs might be. But the wool duty is not likely to equal the increase of the conversion cost. And in that divergence between the ad valorem duty that may be placed upon wool and the percentage of increase in the conversion cost that may exist between foreign countries and the United States lies the only variable factor in adjusting an ad valorem duty on goods to compensate for the wool duty, and to protect the American manufacturer on account of the increased cost of conversion.

Let us, again for illustration only, assume that we have a duty of 50 per cent upon the wool, and that the conversion cost in the United States is 100 per cent higher than it is abroad. Our 50 cents' worth of wool will be increased by the duty 50 per cent, making the American cost of the wool 75 cents. The 50 cents for conversion abroad will be increased by 50 cents—that is, 100 per cent—making the American conversion cost \$1, the total American cost being \$1 for conversion and 75 cents for wool, or \$1.75. So that a 75 per cent duty placed on the foreign value will equalize the wool duty and the increase in the conversion cost. But wool goods do not all represent 50 per cent for wool and 50 per cent for conversion.

Some goods cost more for wool than they do for conversion, and other goods will cost less for wool than they do for conversion.

Let us take a fabric that represents the extreme in one direction, say a fabric that abroad costs 40 cents for wool and 60 cents for conversion. Let us also assume that we have adjusted the tariff on cloth at 75 per cent ad valorem on a 50-50 basis. Now, we have this fabric that is on a 40-60 basis. The 40 cents' worth of wool is increased 50 per cent and becomes 60 cents. The 60 cents for conversion is increased 100 per cent, to \$1.20. So that in America the \$1.20 and the 60 cents make the American cost \$1.80, and on that particular fabric it would require 80 per cent to balance the wool duty and the increase in the conversion cost.

In other words, the sinking of the proportion of wool to 40 per cent, which I believe will be practically the extreme, has resulted in our duty based on the 50-50 basis being 5 per cent too low.

It will not be necessary for me to run through the calculation, as you can readily see that on a foreign fabric of which the wool represents 60 per cent of the cost and the conversion 40 per cent the reverse condition will exist, and that instead of the 75 per cent duty on cloth being 5 per cent too low, it will be 5 per cent too high.

This variation in the proportions of wool and conversion costs is the only variable factor in adjusting an ad valorem duty on goods to balance the wool duty and the increase in the conversion cost.

I hope I have made this clear.

I have been speaking of goods which are made of all-wool fiber. There are goods made of mixtures of wool and cotton. We suggest that if an ad valorem tariff is enacted into law that an investigation be made, and it need not be very complicated or extended in order to be adequate, to determine to what extent the total duty could be reduced on these mixed goods in order that an excessive and concealed compensatory duty may not exist. We believe that concealed protection in any form is one of the greatest evils, and a great danger to the cause of protection.

Senator McLEAN. In the plan you have just suggested, where you apply ad valorem and your percentage of conversion costs to the wool, would not you have to rely almost entirely upon the honesty of the appraiser or invoice?

Mr. DALE. I was just coming to that. No; I do not think so, and for this reason: In the case of the vast bulk of mixed goods it would be easily possible by an analysis to determine the proportions of the wool fiber and the other fibers, and on that basis it would be possible to adopt a graduated reduction of the duty on mixed goods, graduated in accordance with the increase in the percentage of other than wool fiber. It is my judgment that this can easily be done.

Senator McLEAN. I assumed you were talking entirely of wool.

Mr. DALE. I have in my talks so far, but there are vast quantities of fabrics—

Senator McLEAN (interposing). That would add to the complication?

Mr. DALE. Yes; but when I compare the great simplicity of the ad valorem duty, which I have laid before you to-day, with the untold complications in Schedule K that have tormented the country for nearly 60 years, I look upon this adjustment of the duty on mixed goods in order to make the tariff honest as the merest bagatelle in administrative complications.

Senator Smoot. You do not mean by that that the cotton that may be in a piece of woolen goods will carry the value of the woolen goods right in the Payne-Aldrich bill?

Mr. DALE. No.

Senator Smoot. But you do not mean to say that under this provision that goods carrying the cotton warp, wool filling, or mixed filling would carry the wool duty?

Mr. DALE. I do not want it to.

Senator Smoot. Nor do I; and therefore have you not minimized the result of this beyond reason when you say "it is a mere bagatelle?"

Mr. DALE. No; I was comparing the administrative problem with the complexities of the old schedule K. You might find that my plan would involve getting a pair of scales and some chemicals and boiling out the wool and perhaps raveling the threads, which is being done every day in the New York customhouse. Judging that work by itself we might say "That is quite a complicated process." But I was talking in a comparative sense.

Senator Smoot. For instance, one year there were 12 pairs of blankets shipped into the United States by one manufacturer to see how cheap they were making them in Germany. They were all cotton with the exception of a few threads in the border, and because of the few threads in the border they were compelled to pay the all-wool duty upon the blankets, and that brought the duty upon those blankets to over 500 per cent; and that is one of the attacks made upon the Payne-Aldrich bill, and that can not be done under this bill; and it ought never to have been allowed under the Payne-Aldrich bill.

Mr. DALE. I think it can be done under the Fordney bill. The method of adjusting the compensatory duty on wool goods, which I have explained, will serve also for the protective duty. In the illustration I have combined the two. I come now to a very impor-

tant point, the adjustment of the rates on different products, on manufactured products, tops, yarn, and cloth. The theory of protection is that it should balance the difference in cost. It is impossible to determine the difference between the American and the foreign cost of production, because one of those values, the foreign cost, will always remain an unknown quantity. But it is possible, and easily possible, for you to determine the American cost, and then on that basis you can adjust the duties on the assumption that the ratio between the foreign conversion cost and the American conversion cost remains the same for the different classes of goods—tops, yarns, and cloth.

We desire to suggest that if you adopt an ad valorem basis for Schedule 11, you secure data from manufacturers, giving them all an opportunity to supply you with the information, which will enable you to adjust equitably these rates on tops, yarn, and cloth. Each of the two products, tops and yarn, is a raw material for one class of manufacturers and the finished product of another class.

And unless the rates on these products are properly adjusted there is bound to be discrimination and special privilege between the different groups of producers. We think it will be easily possible for you to obtain the necessary information. It should come to you and be held in the strictest confidence, because there is no information that is more jealously guarded, and more properly so, than the information regarding the manufacturing costs in a mill. But you must have this information in order to adjust these duties properly. The carded-woolen manufacturers whom I represent are ready to give it to you with the proper safeguards that it be held in strict confidence and used only for the purpose of making the tariff fair to all.

Senator SMOOT. In that connection, I suppose you would give the average costs?

Mr. DALE. I hardly think I would, because there is sometimes nothing more misleading than an average. I think that it would be well to call for costs on definite products, and have your questionnaire as simple as practicable, with questions that can be easily answered, but comprehensive enough and going into sufficient detail to prevent your being misled.

Senator SMOOT. I would not care how brief or comprehensive the questions may be if the mills are not all making tops and yarns at the same price. That is why I suggested you could not take the lowest, nor can you take the highest. We would have to arrive at some happy medium.

Mr. DALE. I did not understand you. I think when you select a particular product that it would be necessary for you, perhaps, to use your judgment and take what you thought was right—the average—or, if there were any special conditions existing that would warrant your doing so, to take a lower cost or a higher cost. That would be one of the questions for you to decide when you came to it.

Senator McCUMBER. After you have obtained the average of the American cost, will you compare that average American cost in order to determine what the duties will be? The same product might cost twice as much in France as it did in Japan and cost as much in Great Britain as it did in France? What are you going to take as

the basis for your comparison in order to determine what should be the compensatory duty?

MR. DALE. I would let it be based on your judgment and the best information obtainable regarding comparative conditions at home and abroad. The Tariff Board report of 1911 stated that the conversion cost for tops—I am speaking now from memory, and I may not get the figures exact—was approximately 80 per cent higher than in England.

Senator McCUMBER. And how much higher than in Germany?

MR. DALE. I can not give the figures for Germany.

Senator McCUMBER. How much higher than in France?

MR. DALE. I was coming to that. The report stated that for yarn and cloth the French cost was approximately the same as the English.

Senator WATSON. Do those costs still obtain?

MR. DALE. I am coming to that in a moment.

When it came to yarn, the report stated that the conversion cost was approximately 100 per cent higher in this country than in England and France, but that the cost difference on different fabrics varied widely. As I recall it, the lowest was somewhere around 75 per cent higher in this country. On some fabrics the difference in conversion cost went up to 150 per cent—147, as I recall—

Senator WATSON (interposing). Are those 1912 figures of any value now?

MR. DALE. I am coming to that in a minute. That is a very important question, and I want to answer it, but I want to state what those figures are first. Here are extracts from the Tariff Board report:

The difference in the cost of turning wood into tops in this country and England varies with the quality of the tops. Considering all grades, it may be stated that 80 per cent represents a rough approximation of the excess of the American cost over the English.

Worsted yarn. * * * In England the method of frame spinning is the more common, and on the Continent mule spinning. The latter is the more expensive process. Comparing frame spinning in England with frame spinning in the United States—which is the common method here—it may be said that although there are wide variations in both countries from mill to mill, the conversion cost for the same quality and count of yarns in the United States is about twice that of England. * * *

* * * The difference of manufacturing cost here and abroad of woolen and worsted fabrics (from yarn to finished cloth) varies greatly, according to the character of the fabrics. The main processes included are weaving, finishing, and dyeing. The figures of the board show that the cost of turning yarn into cloth in the United States compared with England is all the way from 60 to 170 per cent higher, according to the character of the fabric.

For a great variety of fabrics the American conversion cost is 100 to 150 per cent greater than the English cost.

Those figures are nine years old. Since then there has been a great war. Everything has been upset. But it is the best information that we have, and we are giving it to you, and if we had better information we would give you that. Revising a tariff at a time like this involves meeting this problem, and I can not give you any further information than is given there. It might be possible for the Tariff Commission to give it to you. I have applied to them and they say they have not got it in a form for me. They say that it is not in their possession.

Still, every one seems to be agreed that the tariff will have to be revised. So, with the light that is shining on the question and with what judgment we can bring to bear on its solution, we have certain rates to suggest.

First, however, there is the question of a duty on wool. The wool manufacturers buy wool, and it is not fitting for them to come here and speak with too great emphasis regarding what duty should be put upon a product they buy. The duty on wool under the Dingley and Payne-Aldrich bills for 1908—this is grease wool—was 46.15 per cent; in 1909 it was 53 per cent; in 1910 it was 47 per cent; in 1911, 46 per cent; in 1912, 49 per cent; in 1913, 50.86 per cent; and in 1914, 46.68 per cent.

The carded woolen manufacturers will be satisfied with any ad valorem duty on wool that is satisfactory to the American people, and that includes the wool growers. Any rate that is satisfactory to Congress, to the wool growers, and to the American people will be satisfactory to us, providing it is a fair duty, and that means providing it is ad valorem.

So, with these figures before us, confronting the problem of fixing rates on wool, yarn, and cloth, we start with the suggestion that you consider a 50 per cent duty on wool.

Senator WALSH (interposing). What is it in the Fordney bill?

Mr. DALE. It is 35 per cent on the American valuation, and according to our calculations that, allowing a 5 per cent profit to the importer, is equal to 65 per cent on the foreign value. But all of my discussion here is based on the foreign valuation, in order to keep it uniform and understandable.

Senator WALSH. With the past law?

Mr. DALE. Yes, sir; starting with that suggested rate of 50 per cent on wool—

Senator WALSH (interposing). You mean, of course, that if the American valuation carried in the House bill?

Mr. DALE. Well, I referred to that before you came in, and I repeat now that we do not pretend to understand what the American valuation is.

Senator WALSH. That is all in the record?

Mr. DALE. Yes.

Senator WALSH. I do not want to take the time of the committee. I thank you.

Mr. DALE. Starting with the suggested rate on wool, we suggest that in accordance with the method I have tried to explain here to-day you adjust the rates on yarn on the assumption that the cost of foreign yarn is made up of 70 per cent for wool and 30 per cent for conversion, that the cost of foreign cloth is made up of 50 per cent for wool and 50 per cent for conversion, and that the American conversion cost of both yarn and cloth is 100 per cent higher than the foreign cost.

Without going through the calculations, which I have already explained, that gives us 50 per cent ad valorem on wool, 65 per cent ad valorem on yarn, and 75 per cent ad valorem on cloth.

Senator GOODING. I would like to say, Mr. Dale, that the Tariff Board's estimate is 40 to 60—60 for the wool. When there is a tariff on wool; they held that the conversion cost to the manufacturer is

40 and 60; wool is on the free list, and the present price reduced is 50/50, but with the protection it is 40/60.

Mr. DALE. Yes.

Senator GOODING. That is their finding after very exhaustive investigation?

Mr. DALE. Well, we hope—and I am confidently counting upon your giving sympathetic consideration to these suggestions—we hope that you will subject them to all the acid tests that you can bring to your command.

Senator WATSON (interposing). Senator Gooding, to what report do you refer?

Senator GOODING. The report on Schedule K.

Senator SMOOT. Of course, that would all depend on what class of wool?

Senator GOODING. That is, the average. I think that is generally accepted.

Mr. DALE. I have come to about the end of my story. I have here our brief and the translation of Robert Dantzer's report, which I would like to have entered in the record. I also have a document which I prepared for the Tariff Board on August 12, 1910, being an analysis of the Payne-Aldrich Schedule K, that we would like to have entered in the record. Chairman Page has given his consent to my entering it in the record to-day. It was very carefully prepared; it took me three or four months to prepare it, and it is boiled down. I think you will find it rather useful.

Senator McCUMBER. Without objection, they may be printed in the record.

(The documents referred to and submitted by Mr. Dale are here printed in full, as follows:)

AN ANALYSIS OF THE PAYNE-ALDRICH SCHEDULE K.

BOSTON, MASS., August 12, 1910.

To the TARIFF BOARD,
Washington, D. C.

SIRS: I have the honor to submit this my report in response to your request as per the following memorandum:

The Tariff Board desires from Mr. Dale—

First. A general statement in regard to the woolen schedule of the present tariff law and where are its defects and the spots where changes should be made.

Second. An outline of methods of investigation to be adopted in studying costs of production in this and foreign countries in each branch of the woolen industry, which should include: 1. Raw wools. 2. Yarns. 3. Wastes, shoddy, tops, etc., as covered by paragraphs 372 to 375, inclusive. 4. Cloth: (a) Worsted; (b) carded wool. 5. Carpets and rugs.

Third. The names of persons whose ability and experience have qualified them to do the proper work in investigating the woolen schedule.

THE WOOL AND WOOL GOODS SCHEDULE.

As regards its general plan Schedule K of the present tariff law is the same as in the tariff law of 1867. There have been changes in details from time to time, but these changes have been without effect on the plan and objects of the law, which may be outlined as follows:

THE CLASSIFICATION OF WOOL.

Raw wools as they come from the sheep, camel, goat, and like animals, are divided into three classes:

Class 1. Wool of Merino blood, immediate or remote, to which have been added certain other wools, such as Bagdad, China lamb's wool, etc., as described in paragraph 361.

Class 2. English and Canadian long-combing wools, and similar wools, mohair, alpaca, and camel hair, as described in paragraph 362.

Class 3. Carpet wools, as described in paragraph 363.

THE TARIFF ON WOOL AND BY-PRODUCTS.

The rates of duty on the various wools under the present law are as follows: Class 1. (a) Unwashed, that is, not washed on the sheep's back, 11 cents a pound. (b) Washed on the sheep's back, 22 cents a pound. (c) Sorted, 22 cents a pound. Wools may, however, be skirted without increase of duty above 11 cents. (d) Scoured, 33 cents a pound.

Class 2. (a) Unwashed or washed, 12 cents a pound. (b) Sorted, 24 cents a pound. (c) Scoured, 36 cents a pound.

Class 3. (a) Valued at 12 cents or less, 4 cents a pound. (b) Valued at more than 12 cents, 7 cents a pound. (c) If containing not more than 8 per cent of grease or foreign substances, the above rates (a and b) are increased to threefold, that is, 12 cents and 21 cents, respectively.

The rates of duty on wool by-products and reclaimed wool (shoddy) under the present law are as follow: (a) Top waste, slubbing waste, roving waste, ring waste, and garnetted waste, 30 cents a pound. (b) Reclaimed wool (shoddy), 25 cents a pound. (c) Noils, 20 cents a pound. (d) Yarn waste, 20 cents a pound. (e) Rags, mungo, and flocks, 10 cents a pound.

THE TARIFF ON MANUFACTURES OF WOOL.

The foregoing list covers, with a few unimportant exceptions, the raw materials for wool manufacture as classified in Schedule K of the present law. We now come to partly and fully manufactured products consisting wholly or in part of wool.

Partly manufactured material: (a) Tops, which are wool combed for manufacture into worsted yarn; valued at not more than 20 cents, 24½ cents a pound and 30 per cent ad valorem; valued at more than 20 cents, 36½ cents a pound and 30 per cent ad valorem. (b) Roving, which is worsted ready for the spinning process (paragraph 376): Valued at not more than 40 cents, 33 cents a pound and 50 per cent ad valorem; valued above 40 cents and not above 70 cents, 44 cents a pound and 50 per cent ad valorem; valued above 70 cents, 44 cents a pound and 55 per cent ad valorem. (c) Yarns: Valued at not more than 30 cents, 27½ cents a pound and 35 per cent ad valorem; valued above 30 cents, 38½ cents a pound and 40 per cent ad valorem.

Finished goods: (a) Cloths, knit fabrics and all manufactures not specially provided for, valued at not more than 40 cents, 33 cents a pound and 50 per cent ad valorem; valued above 40 cents and not above 70 cents, 44 cents a pound and 50 per cent ad valorem; valued above 70 cents, 44 cents a pound and 55 per cent ad valorem. (b) Blankets: Valued at not more than 40 cents, 22 cents a pound and 30 per cent ad valorem; valued at more than 40 cents and not more than 50 cents, 33 cents a pound and 35 per cent ad valorem; valued above 50 cents, 33 cents a pound and 40 per cent ad valorem.

(c) Flannels: Valued at not more than 40 cents, 22 cents a pound and 30 per cent ad valorem; valued at more than 40 cents and not more than 50 cents, 33 cents a pound and 33 per cent ad valorem; valued at more than 50 cents, the same as dress goods.

(d) Women's and children's dress goods made with a cotton warp: Valued at not more than 70 cents a pound and not more than 15 cents a square yard, 7 cents a square yard and 50 per cent ad valorem; valued at more than 70 cents a pound and more than 15 cents a square yard, 8 cents a square yard and 50 per cent ad valorem; valued at not more than 70 cents a pound and not more than 15 cents a square yard, 7 cents a square yard and 55 per cent ad valorem; valued at more than 70 cents a pound and more than 15 cents a square yard, 8 cents per square yard and 55 per cent ad valorem; weighing over 4 ounces per square yard, 5 per cent ad valorem less than the rates on cloths.

(e) Women's and children's dress goods made wholly or in part of wool and not specially provided for: Valued at not more than 70 cents a pound, 11 cents per square yard and 50 per cent ad valorem; valued at more than 70 cents per

pound, 11 cents per square yard and 55 per cent ad valorem; weighing over.4 ounces per square yard, the same as on cloths.

(f) Clothing, knitted articles, and felts not woven: Forty-four cents a pound and 60 per cent ad valorem.

(g) Narrow fabrics and lace (paragraph 383), 50 cents a pound and 60 per cent ad valorem.

(h) Axminster and Wilton carpets (paragraphs 384 and 385), 60 cents per square yard and 40 per cent ad valorem.

(i) Brussels carpets (paragraph 386), 44 cents per square yard and 40 per cent ad valorem.

(j) Velvet carpets (paragraph 387), 40 cents per square yard and 40 per cent ad valorem.

(k) Tapestry Brussels carpets (paragraph 388), 28 cents per square yard and 40 per cent ad valorem.

(l) Treble ingrain carpets (paragraph 389), 22 cents per square yard and 40 per cent ad valorem.

(m) Two-ply ingrain carpets (paragraph 390), 18 cents per square yard and 40 per cent ad valorem.

(n) Rugs (paragraph 391), 10 cents per square foot and 40 per cent ad valorem.

(o) Bockings (paragraph 392), 22 cents per square yard and 40 per cent ad valorem.

(p) Carpets, mattings, and rugs of wool not specially provided for (paragraph 393), 50 per cent ad valorem.

PLAN OF SCHEDULE K.

In the foregoing outline of Schedule K the rates, instead of being given in the complicated phraseology of the law, have been reduced to definite terms for the sake of clearness. A brief examination of the plan on which the present wool and wool-goods tariff has been framed will, however, aid us in the study of the schedule.

COMBING AND CLOTHING WOOLS.

When Schedule K was framed wools for clothing were divided into class 1 and class 2 in order to separate the clothing wool for carded woolen goods (class 1) from the combing wools for worsted goods (class 2). The development of the wool-manufacturing industry has deprived this classification of its original significance.

Whereas in 1867 practically all wools suited for American worsted mills were included under classes 2 and 3, while class 1 wools were used almost entirely for carded woolen goods; now class 1 wools, as well as class 2 wools, are used for worsted.

While wools of rather short staple can be, and are, combed, principally by what is known as the French system, the broad distinction between combing wools for worsted goods and clothing wools for carded woolen goods is in the length of the staple, the longer wool being specially adapted for worsted, and the shorter wool for carded woolen goods. Moreover, it is only by the carded woolen process that large quantities of wool material, such as very short wool and by-products from wool manufacturing can be manufactured into wool goods.

When Schedule K was first framed, in 1867, combing wools of class 2 had been coming in free of duty from Canada in a washed condition—that is, washed on the sheep's backs, a process which removed more or less of the grease and dirt from the wool and reduced by that amount the shrinkage in the subsequent manufacturing process of scouring. As the custom of washing the sheep before shearing was so firmly established in Canada and in Great Britain in 1867 that it could not be changed, it was decided that worsted wools—that is, class 2 wools, should be exempted from the provision by which the duty on washed wools was made double the duty on unwashed wools, and should be admitted at a single rate of duty. The rate on class 2 wools, washed and unwashed, was fixed at 12 cents, and that on class 1 wools at 11 cents if unwashed, and 22 cents if washed.

Thus it is that the development of the wool-manufacturing industry, while leaving these classifications unchanged for 43 years, has brought about the present situation under which a part of the wool suited for worsted is admitted in the washed condition at 12 cents a pound, while the duty on other washed wools is doubled.

THE TARIFF ON CARPET WOOLS.

Carpet wools were placed under a separate classification, class 3, at a lower duty on the theory that they competed less with American-grown wools than did wools of classes 1 and 2.

Wools vary so widely in quality and the requirements of carded woolsens, worsteds, and carpets are so diverse that no classification by processes of manufacturing can be exact. A small quantity of class 2 wool is used in the manufacture of carded woolen goods, while more or less carpet wool, class 3, is used for worsteds and carded woolsens.

The specific duties on by-products and reclaimed wool (shoddy) are arbitrary, having no regular relation to the value of the materials nor to each other.

COMPENSATORY DUTIES.

The tariff on partly or wholly manufactured wool materials consists of a compound duty; that is, a specific and an ad valorem rate. The specific duty is ostensibly imposed for the purpose of compensating the domestic manufacturer for the increase in the cost of goods resulting from the tariff on the raw material. For example, if the American manufacturer makes a fabric in which the wool costs 70 cents a yard, of which 20 cents is due to the tariff, while the foreign manufacturer is able to obtain the wool for the same cloth at a cost of 50 cents a yard because he is not required to pay any duty on his raw material, it is evident that a duty of 20 cents a yard would place the American and foreign manufacturers on the same competitive basis in the American market as if there were no tariff on either wool or goods.

This compensatory duty in our tariff law is based on the assumption that a definite weight of unwashed (grease) wool is required to produce one pound of partly or fully manufactured materials, this compensatory ratio varying with the different stages of manufacturing, and with the value of the material at each stage.

Tops are a product of one of the preliminary processes of worsted spinning, and it is assumed that $2\frac{1}{2}$ pounds of unwashed wool is required to produce 1 pound of tops valued at not over 20 cents a pound; and that $3\frac{3}{8}$ pounds of wool (unwashed) is required to produce 1 pound of tops valued at more than 20 cents. Accordingly the specific or compensatory rate per pound on the former is fixed at $2\frac{1}{2}$ times the duty (11 cents) on a pound of unwashed wool, or $24\frac{1}{2}$ cents; while the specific duty on the latter is fixed at $36\frac{3}{8}$ cents, which is $3\frac{3}{8}$ times the duty (11 cents) on a pound of unwashed wool.

This method of fixing the specific rate is used with different ratios for yarn and cloth. The ratios for yarn are $2\frac{1}{2}$ and $3\frac{1}{2}$, according to the value; for cloth, 3 and 4, according to the value; for blankets, 2 and 3; for flannels, 2, 3, and 4. Owing, however, to the greater volume of the trade in cloths valued at more than 40 cents a pound, the ratio of 4 to 1, with the resulting compensatory duty on cloth of 44 cents a pound, is the one with which the public is most familiar.

The compensatory duty on clothing is derived from the duties on cloths. As the weight of clothing is made up not only of wool cloth but largely of other materials, the compensatory duty is without question entirely arbitrary, having no definite relation to the ratio between the weight of unwashed wool and the weight of the wool garment.

Felts not woven and knitted garments bear the same compensatory duty as clothing.

In framing the compensatory tariff on dress goods, carpets, and rugs the rates are based on the area of the fabric. As these goods vary widely in weight per square yard, the compensatory rates are necessarily without definite relation to the amount of duty on the wool required for their manufacture.

The compensatory and ad valorem duties on partly manufactured products not specially provided for are, by the blanket paragraph 376, made the same as the duties on wholly manufactured goods under paragraph 378. The only important commercial product coming under this blanket provision is roving, which is worsted ready for the spinning process.

PROTECTIVE RATES.

The ad valorem duties on partly and wholly manufactured wool goods have for their professed object the protection of the domestic manufacturer against foreign competition.

DEFECTS OF SCHEDULE K.

Having made a general survey of the wool and wool-goods schedule, I will now consider its defects.

SPECIFIC DUTIES ON WOOL.

The first defect to claim attention is the placing of specific duties on wool carrying large quantities of grease and dirt and varying widely in utility even after the grease and dirt are removed by scouring. The grease and dirt adhering to wool are of no value in the production of cloth and ordinarily are run to waste. In the few cases where the wool grease is reclaimed the gain is negligible as far as this tariff investigation is concerned.

The shrinkage of grease wools subject to the 11 and 12 cent duties varies as much as from 10 to 80 per cent, and the heavy shrinking wool when scoured may be of a short staple and defective quality, while the light shrinking wool when scoured may be of a high grade and value. It is evident that under such conditions a straight specific duty will result unavoidably in extreme variations. These variations are disclosed by applying the specific duty to wool as it is sold in the principal wool markets of the world and reducing such duties to their ad valorem equivalents. The ad valorem equivalents in such a test are an accurate indication of the variation of the duty, because of the price of wool being determined by the shrinkage of the grease wool and by the utility of the scoured fiber. Early in 1909 I applied the Dingley specific duties (which were the same as the Payne rates) to the different lots in about 60,000,000 pounds of wool sold at the London auctions in January and February of that year. The unwashed wool on which the duty was 11 cents a pound varied in price from 2 cents to 47 cents a pound, and as a result the ad valorem equivalent of the specific duty varied from 23 per cent to 550 per cent. This illustrates a fundamental defect in the wool and wool-goods schedule.

WASHED WOOL.

Moreover, this specific duty, which is fundamentally defective, is made even more objectionable by certain irregularities in its application.

If wool of class 1 has been washed on the sheep's back, the specific duty is doubled. I have found no reliable data bearing on the loss of weight by washing sheep. One grower estimated it at 15 per cent. This loss could be determined only by weighing the sheep before washing, after washing and drying, and again before shearing. It is safe to conclude, however, that the loss is not far from 15 per cent, which would warrant raising the duty from 11 cents to 13 cents. The present tariff law, however, increases the duty to 22 cents, making it prohibitory for all practical purposes.

The application of the Dingley specific duties to 60,000,000 pounds of wool, already mentioned, showed that on washed wool the ad valorem equivalents varied from 22 per cent to 733 per cent. It is doubtful if any wool is imported on which the duty is more than 75 per cent.

SORTED WOOL.

If wool has been sorted or increased in value by the rejection of any part of the original fleece, the specific duty is doubled. Assuming that this clause means that the rejections are not subject to the double duty, I will illustrate its effect by applying the rates before and after sorting to a lot (E 231) of 10,618 pounds of Australian wool sorted under my supervision:

Unsorted:

10,618 pounds, at \$0.2144-----	\$2, 276. 50
Duty (11 cents), 51.3 per cent ad valorem-----	1, 167. 98
Duty paid-----	<u>3, 444. 48</u>

Sorted:

10,618 pounds, at \$0.2144-----	2, 276. 50
Cost of sorting-----	67. 96
	<u>2, 344. 46</u>

Duty:

10,311 pounds body sort, at \$0.22-----	\$2, 268. 42
307 pounds rejections, at \$0.11-----	33. 77
Total duty, 98.2 per cent ad valorem-----	<u>2, 302. 19</u>
Duty paid-----	<u>4, 646. 65</u>

Thus, by sorting this lot of wool at a cost of \$67.96, the duty was increased by \$1,134.21—that is, from \$1,167.98 to \$2,302.19, or from 51.3 per cent to 98.2 per cent ad valorem. In other words, this lot of wool, if imported unsorted, would cost \$3,444.48, duty paid. If sorted, at the trifling cost of \$67.96, it would cost \$4,646.48, duty paid.

Such increases raise the cost of wool to prohibitory figures and make the duty an impassable barrier to the importation of foreign wool, with a greatly strengthened inducement to evasion of the law.

THE SKIRTING CLAUSE.

The skirting clause has the following proviso (par. 368) :

“That skirted wools as imported in 1890 and prior thereto are hereby excepted.”

I have been unable to discover that the United States customs authorities have any samples of fleeces showing how wool was skirted in 1890 or prior thereto, or that they have any exact definition of how wool was skirted at that period. Moreover, it is incredible that the woolgrowers of distant countries observe any rules for skirting wool to make it conform to any definite interpretation of the skirting clause of our tariff. Trustworthy information leads me to the conclusion that skirting, as defined by the clause of our tariff law, is but little more than a tradition, dating back more than 20 years, and leaving its present application to the practically unchecked discretion of subordinates in the customhouses. The seriousness of such a condition will be understood from the fact that wool passed as skirted is subject to a single duty of 11 or 12 cents a pound, while wool passed as sorted is subject to a double duty of 22 or 24 cents.

A clause like the skirting proviso, which is incapable of exact interpretation and strict enforcement, is a serious defect in any tariff law. Under its loose and vague provisions those charged with enforcing the law can nullify the intent of other provisions in the statute, as the sorting clause is to a large extent nullified in our law.

THE TARIFF ON SCoured WOOL.

The duty on wools of classes 1 and 2, if imported scoured, is three times the duty on unwashed wool. Such duties would be uniform if 3 pounds of unwashed wool was always required to produce 1 pound of scoured wool. As a matter of fact, however, the great bulk of the world's wool clip shrinks much less than 66½ per cent in scouring, some of it shrinking as little as 10 per cent. The result is that only the lightest shrinking grease wools are imported into the United States in order to get the benefit of the lowest possible duty per scoured pound. On wool shrinking 33½ per cent, of which large quantities are imported, the duty of 11 cents per grease pound is equivalent to 16½ cents per pound scoured, or just one-half of the duty of 33 cents on wool imported scoured. The cost of scouring, like the cost of sorting, amounts to but very little—about one-half cent per pound scoured, being as insignificant compared with the additional duty imposed as is the cost of sorting.

The 33 and 36 cent rates on scoured wool serve two objects. They cause the exclusion of all that large quantity of wool which is offered for sale in foreign markets in the scoured condition and which is well adapted for the production of low-priced but very serviceable wool clothing. In addition these rates on scoured wool lead many American wool growers into the mistaken belief that they represent the duty on imported wool on a scoured basis.

If the grease and dirt are removed from wool in foreign countries, there is no good reason why the scoured wool should not be admitted to the United States at a fair rate of duty, but the 33 and 36 cent rates make importation of scoured wools commercially impossible. The irrational character of the wool duties in this regard is illustrated by the fact that grease wool of class 1, shrinking, say, 30 per cent, if imported in the grease, is subject to a duty equal to 15½ cents per scoured pound, while the same wool, if scoured at a trifling cost abroad and imported in the scoured condition, is subject to a duty of 33 cents per scoured pound.

BY-PRODUCTS.

The defects in the duty on wool by-products and reclaimed wool (shoddy) are that with unimportant exceptions they are so high as to be prohibitory,

and being specific bear no regular relation to the utility of the materials. The duties on wool by-products also exhibit the defect inherent in specific duties, that they bear most heavily on the cheaper materials. For example, worsted noils valued at 20 cents a pound are subject to a duty of 20 cents, which is 100 per cent of the value, while noils valued at 40 cents a pound are subject to the same specific duty—20 cents—which is only 50 per cent of the value. The effect of this straight specific duty is that low-priced noils suited for the manufacture of low-priced but serviceable clothing are excluded from the United States, while a small quantity of high-priced noils is imported for use in the manufacture of high-priced goods.

The utilization of the by-products of wool manufacture and of reclaimed wool is essential in providing the people with an adequate supply of wool clothing because of the relatively small amount of new wool annually sheared from the world's sheep. It is therefore of great importance that no unnecessary restriction be placed on our access to these useful materials. Restricting the supply of them has two unavoidable results—it increases the cost and encourages the adulteration of wool goods.

MANUFACTURED GOODS.

We now come to the tariff on partly or wholly manufactured goods. The principal defect here is that the compensatory rates of duty do not correspond to the amounts required to compensate the manufacturer for the increased cost resulting from the tariff on the raw material. It is inevitable that this should be the case, because the rates are based on assumed ratios between the weight of unwashed wool and of the materials made from it. As we have seen, the ratio between the grease weight and scoured weight of wool varies approximately from 10 to 80 per cent. Owing to the further variation in the shrinkage in manufacturing it follows that even greater diversity will be encountered in the actual ratio between grease wool and partly or wholly manufactured goods.

THE 4 TO 1 RATIO.

A ratio of 4 to 1 is adopted for grease wool and cloth which costs more than 40 cents a pound. This 4 to 1 ratio is approximately correct for wool shrinking 62 per cent in scouring. If all wools shrunk 62 per cent in scouring, the compensatory tariff, based on the ratio of 4 to 1, would be a nearly perfect system. Instead, however, of all wools shrinking 62 per cent, a large part of the world's clip, enough to supply easily the demand for imported wool in the United States, shrinks much less than 62 per cent. Moreover, the specific duty on grease wool operates, as we have seen, to exclude the heavy wool for which the 4 to 1 ratio is correct.

Very little wool shrinking more than 50 per cent is imported, while much of the wool brought into the United States shrinks much less, some of it, like mohair, shrinking only 10 per cent. The result is that the compensatory duty is invariably in excess of the amount required, the excess going to swell the protection to the manufacturer. This defect can not be remedied by reducing the legal ratio between grease wool and cloth, because the average ratio between grease wool and cloth, even if it could be determined, would not answer for assessing compensatory duties. Wool is used by the mills, not in lots of average shrinkage but to suit the fabric to be made. One cloth may be made of the lightest shrinking wool; another of the heaviest. For that reason compensatory rates based on the average ratio between grease wool and finished cloth would be excessive on some goods and deficient on others. It should be borne in mind that the 4 to 1 ratio is not an average ratio, but is close to one extreme, representing the ratio between cloth and wool shrinking about 62 per cent.

I have selected the 4 to 1 ratio for illustration because it is so well known, but what has been said regarding it is true of the other assumed ratios between grease wool and tops, roving, yarn, cloth, knit goods, and felts.

PARAGRAPH 376.

Paragraph 376 of the present Schedule K is a blanket clause by which all partly manufactured wool materials not specially provided for are made dutiable at the rates imposed on cloths under paragraph 378. Under this blanket paragraph roving, which is a product advanced to a condition ready to spin into yarn, is dutiable as finished cloth.

Thus the compensatory tariff on roving is not only higher than on the yarn made from it, but it is, in fact, higher than on the finished cloth made from it, because, owing to the waste in manufacturing, the roving is heavier than the cloth.

GOODS COMPOSED IN PART OF WOOL.

A further defect in the compensatory rates is their application to goods made of mixtures of wool and other materials, such as cotton, hemp, jute, wool waste, and reclaimed wool (shoddy). On such goods the excess of the compensatory rate above that actually required is greatly increased.

HOW MUCH WOOL TO MAKE A POUND OF CLOTH.

Additional information regarding the compensatory duty and the shrinkage in manufacturing will be found in the two accompanying articles, "Tariff on Wool and Wool Goods," and "How Much Wool to Make a Pound of Cloth?" The former gives comparisons of the legal compensatory duty with the amount actually required on 11 fabrics of widely different construction. The latter gives the result of a test to determine the shrinkage in manufacturing wool goods, which covered the production of the Hecla Mill at Uxbridge, Mass., for a period of nearly four years (1886-1890).

The use of different ratios for manufactured materials of different values such as $2\frac{1}{2}$ and $3\frac{1}{2}$ for tops, $2\frac{1}{2}$ and $3\frac{1}{2}$ for yarns, or 3 and 4 for cloths, is a rough attempt to correct some of the extreme variations in the compensatory rate to which I have called attention. They fall far short of what is required, as will be seen by applying any one of the compensatory rates to a number of lots of merchandise dutiable under it. In the case of felt not woven, and knit garments, even this rough attempt at equalization is omitted, and the compensatory duty is based on a uniform rate of 4 to 1 regardless of value.

THE HIGHEST TARIFF ON THE CHEAPEST GOODS.

Another defect inherent in the specific duties is that they bear more heavily on the cheaper grades of goods. This defect is but partially corrected by the reduction of the specific or compensatory duty on goods under a certain value. For example, a wool yarn valued at 50 cents a pound is subject to a compensatory duty of $38\frac{1}{2}$ cents, while a yarn valued at 25 cents a pound is dutiable at $27\frac{1}{2}$. The lower specific rate, $27\frac{1}{2}$ cents, is, however, equal to 110 per cent of the value of the yarn, while the higher specific rate, $38\frac{1}{2}$ cents, is but 77 per cent of the value of the yarn to which it is applied. This defect is, of course, still greater where no attempt is made, as in the case of knit garments and felts not woven, to adjust the specific rates to a different value.

While I have illustrated this fault by reference to yarn, it will be found running all through the schedule, on raw materials, partly manufactured and finished goods. As a result the cheaper wool materials are excluded from the country while the imports are confined to the higher-priced goods, which may to a considerable extent be classed as luxuries. The attempt is made to justify this discrimination against low-priced goods by the claim that the object is to prevent the domestic market from being flooded and the domestic consumer defrauded by an influx of very inferior and unserviceable goods. Aside from the obvious objection to sumptuary legislation the fallacy in this claim lies in the failure to take into account the fact that in wool goods cheapness does not necessarily mean lack of utility. Warm, durable, and in every respect serviceable wool goods are manufactured from the low-priced wools, reclaimed wool, noils, wastes, and other by-products. Inferior goods are made from inferior stock, but such goods can be safely left to find their level in the market, without protecting the public against them by arbitrary legal barriers, under which there is no discrimination between what is good and what is poor.

THE TARIFF ON DRESS GOODS AND CARPETS.

The compensatory tariff on dress goods and carpets has the same defect. It does not correspond even approximately with the amount needed to compensate the manufacturer for the increase in cost resulting from the tariff on the raw material, being, in all cases that have come under my observation, largely in excess of the amount required. On dress goods and carpets they are specific rates per square yard and thus do not have even the appearance of possessing

a definite relation to the specific duty on wool, as is the case with tops, yarns, and cloths. Nevertheless the actual discrepancy in the compensatory duty on dress goods and carpets is probably no greater than on tops, yarns, and cloths.

THE AD VALOREM DUTIES ON GOODS.

The ad valorem rates are imposed on partly and wholly manufactured materials, in addition to the compensatory tariff, for the purpose of protecting the manufacturer. I am inclined to believe that these ad valorem rates are not much above what is required for the purpose of protection. The excessive rates are principally the result of the excess of the compensatory tariff.

WHERE CHANGE SHOULD BE MADE.

The next request in the memorandum is that I point out the spots on schedule K, where changes should be made. My review of the defects in this schedule makes it plain that it needs a general and thorough reorganization. It is based on a fundamentally defective system which affects every one of its paragraphs, and it can not be made right by amendments in spots. The reorganization should follow the scientific and thorough investigation which you are to make.

METHOD OF INVESTIGATION.

The second division of your memorandum is as follows:

"An outline of methods of investigation to be adopted in studying costs of production in this and foreign countries in each branch of the woolen industry, which should include—1. Raw wools. 2. Yarns. 3. Wastes, shoddy, tops, etc., as covered by paragraphs 372 to 375, inclusive. 4. Cloth: (a) Worsted; (b) carded wool. 5. Carpets and rugs."

My first suggestion is that the inquiry be divided into three parts: First, dealing with the growing and sale of wool which is the finished product of the farmer but the raw material for the wool manufacturer; second, dealing with the manufacture of the wool into cloth ready for manufacture into garments; third, dealing with the manufacture of cloth into clothing and its distribution to the consumers. Parts 2 and 3 will unavoidably overlap each other in the case of certain products, such as carpets and rugs, hosiery, and underwear, but the three classifications can be carried out with slight modifications to suit these special cases.

THE WOOL SUPPLY.

As regards the method of investigation I shall restrict myself mainly to the manufacturing of wool goods, as it is to that branch of the industry that my practical experience has been confined. There are, however, a few suggestions I desire to make in connection with the raw-wool supply. It is desirable to know the quantity of the various grades of wool produced in this country and abroad. The statistics of the wool supply are to a great extent unreliable, and care should be taken by you to sanction the use of only such wool statistics as are known to be reliable. This may restrict you to a very limited supply of figures, but that can not be helped. The use of the great mass of figures relating to the supply of wool would tend to defeat the object of your work, which is to determine facts.

The world's stock of wool as it is offered for sale should be carefully studied. This task is simplified by the fact that much the greater part of the world's wool supply is sold by public auction in a few large centers of the trade, such as London, Sydney, Melbourne, Adelaide, and Antwerp. The cooperation of the owners of the wool, their agents, and the managers of the auction sales would enable the board to study the stocks under specially favorable conditions and obtain a mass of information of very great value. I am not enthusiastic as to the possibility of securing such cooperation, but even a partial success would bring valuable results. The information sought in this way would include the quantity and quality of the wool and the estimated shrinkage of that part that is offered for sale in the grease.

The facts as to quantity, quality, and condition and the price of the wool sold at these auctions are an essential factor in an intelligent consideration of the entire wool and wool-goods schedule. Fortunately, the quantity of wool sold at these auctions is so large as to represent fairly the world's supply. Care should be taken to have the investigation cover enough of the wool to give

a fair average and avoid the error of drawing general conclusions from a partial view.

WOOL AUCTIONS.

Another important subject of inquiry is the wool auctions themselves. The controversy over the wool tariff centers around the question of specific and ad valorem duties on wool. While the inequalities of specific duties are admitted, it is claimed that the danger of undervaluation makes an ad valorem tariff even more objectionable. The character of the world's great wool auctions has an important bearing on this point, and the board should determine by careful investigation whether these auction sales are so conducted as to warrant their recorded prices being accepted under proper safeguards as a basis for appraising imported wool at United States ports.

CARPET WOOL FOR CLOTHING.

Among the questions that should be studied is the extent to which wools of class 3, known as carpet wools, are used for clothing. Information should also be gathered bearing on the proposition to abolish all classification of wool and make all kinds subject to one uniform rate of duty.

DIFFERENCE IN COST OF PRODUCTION.

The party in control of the Government and the President are committed to the principle that the protective tariff should be measured by the difference in the cost of production in this country and abroad, plus a reasonable profit. That being the case, it is the duty of the board to do their best to determine the domestic and foreign cost. I have been of the opinion that it is impossible to determine these costs, but the present situation is such as to require that the attempt shall be made.

Even if there were no doubt in my mind as to the possibility of success, the fact that the investigation will be in a practically unexplored field would alone warrant me in advising you to proceed cautiously and test the practicability of the work before undertaking it on a comprehensive scale. The lack of previous experience in this line of investigation, combined with the fear that complete success is not attainable, makes me very confident in advising you to investigate first some staple product of wool manufacture. If the investigation is successful the inquiry can be extended to other products, with the added advantage of the experience gained in connection with the first one. Better results will follow this plan of making haste slowly than would be obtained by starting at once an investigation of costs throughout the entire wool-manufacturing industry. Of course, while the inquiry is being carried on energetically in the limited field, preparations can go forward as rapidly as possible for extending it to the remainder of the industry.

Because of the difficulty of the undertaking and the lack of experience I would advise that the product selected for the preliminary investigation be one presenting the least technical difficulty. For that reason it should be a staple article for which there are established standards both in the United States and abroad. It should also be a product advanced sufficiently in the process of manufacture to afford an adequate basis for the test. White worsted yarn fulfills these requirements and is the only manufactured wool product that does. Other products are open to serious objections. Worsted tops are not advanced sufficiently in manufacturing. Neither worsted cloths nor carded woolen goods are standardized so as to make a fair comparison possible. White worsted yarn, however, is well advanced in the process of manufacturing, and is manufactured and sold in the United States and foreign countries by well understood and, in the main, identical standards as regards both quality and size.

INVESTIGATION BY DEPARTMENTS.

The plan of the inquiry, as regards both the general features and the details, should be framed with great care so as to fit into any extension to other wool products, and to give the information in the form best adapted for its consideration in connection with the revision of the classifications and rates of the schedule.

To this end I would suggest that the cost be determined separately for each department or process of manufacturing and not for particular products. If,

for example, the domestic cost is found for a certain fabric, the information will be of value only in connection with that fabric, and it may be found impossible to get corresponding data for the foreign cost of the same kind of goods. If, however, the cost is obtained for each department or process of manufacturing, based on the respective units of production, the domestic and foreign costs will be comparable even if the finished products of the mills vary widely from each other. The manufacturer would be asked to give a statement of his production, labor, and expense accounts, separately for each process, such, for example, as sorting, scouring, carding, combing, drawing, spinning, warping, weaving, dyeing, finishing. The production and average cost would be based on the pound, run, hank, or yard, as required. It would be necessary in addition to prescribe a uniform method of distributing the fixed charges among the various processes, this being, technically, the most difficult part of the task.

A great advantage of this method of investigation by separate departments is that the results from the different mills will be comparable regardless of whether the mills buy raw stock or partly manufactured material, or whether their production is in the form of partly manufactured or finished goods. For example, one mill (1) may convert the grease wool into yarn; another (2) may buy wool and yarn, converting them into cloth; another (3) may buy wool and yarn and sell both yarn and cloth; while a fourth (4) may buy yarn only and convert it into cloth.

	Receives.	Produces.
Mill 1	Grease wool...	Yarn.
Mill 2	Wool and yarn	Cloth.
Mill 3	do	Yarn and cloth.
Mill 4	Yarn	Cloth.

It will be readily seen that the total manufacturing costs of these four establishments are not comparable because the price paid for the yarn purchased by three of them as raw material represents a part of the cost of manufacturing wool into cloth, while the yarn sold by two of them as a finished product is in fact a partly manufactured product and more or less expense is still required to convert it into cloth.

These four mills do not exhaust the possible combinations of different products received and produced. A mill may receive grease wool, scoured wool, tops, roving, yarn, or unfinished cloth as its raw material and deliver scoured wool, tops, roving, yarn, unfinished or finished cloth as its finished product. Without dwelling further on this point it will be seen that, aside from the variation in the class of goods, the diversity in the form of the materials received and produced by the different mills would make impossible any useful comparison of the average costs for entire mills.

With the proposed investigation by departments, the results are all placed on the same basis for comparison, regardless of the form in which the material goes into the mill or comes out of it. The cost of weaving in No. 3 mill, which buys both wool and yarn and sells part of the yarn it spins, would, for example, be comparable with the cost of weaving in No. 4 mill, which buys yarn only, or in No. 2 mill, which buys wool and yarn, converting it into cloth. In other words, the costs for each process would be comparable between different mills regardless of the form in which the material is received and delivered by the respective establishments.

The cost of any product, either partly or wholly manufactured, can be closely estimated from the cost averages thus determined.

ANALYSIS OF FABRICS.

It will be necessary for the board to collect and analyze samples representing fairly all the commercial products of domestic and foreign wool manufacture. The results of the analyses will enable a close estimate of the cost of manufacturing each product to be made, based on the cost averages already determined for the respective processes and for the fixed charges. I desire to lay special emphasis on the importance of this work. If well done, it will give the lawmakers and the public information essential for the intelligent framing of a wool and wool-goods tariff schedule, which information is possessed now only

by the wool manufacturers, and imperfectly by many of them. It is only by the aid of such information that such an important matter as the adjustment of any compensatory duty on goods to the amount required can be made; and it is only by the aid of such information that defects in any given compensatory rate can be detected.

It is only by such a system of analysis that the complicated problems of framing a tariff on products composed partly of wool can be properly solved. These wool products involve the manufacture, not only of wool, but of cotton, silk, linen, jute, and other textile materials, and the board must have the information that can be obtained only by careful analyses of representative samples.

EXTENSION OF PLAN.

This general plan for the investigation of the cost of wool goods could be applied to all branches of the business, including carded woolen, worsted, knitting, carpet, and felt mills, modifying the details as might be found necessary to suit the conditions in each branch of the business.

SHODDY.

Shoddy would be treated as a partly manufactured product, and the comparative cost of manufacturing determined by the same general method as that already recommended for other manufactured materials, modifying the details to suit the special requirements of shoddy manufacture.

WOOL BY-PRODUCTS.

The by-products of wool manufacture, such as noils, wastes, and flocks, are in a class apart from other materials, and it would be necessary to investigate them on a different plan. No part of the labor cost or other expense of manufacturing is charged in their production. They drop from the material in process of manufacturing and are either used again as raw materials in the mill in which they were made or are sold for the best price possible.

Under these conditions wool by-products should be studied to determine their adaptability for manufacture into wool goods. Reliable statistics of the domestic and foreign-market prices of the various wool by-products for a term of years should be obtained, along with any other information that would aid the lawmakers in fixing upon a fair duty on these materials, leaving the adjustment of rates to be made on the basis of that information and of other considerations, such as the extent to which the woolgrower should be protected against the competition of by-products.

ASKING MANUFACTURERS FOR INFORMATION.

Having decided upon what information is required, it will be necessary to present the request for it to the American and foreign manufacturers. This part of the undertaking is surrounded with peculiar difficulties because the personal element is so largely involved. Two requirements seem to me so important that I will name them first. They are that the requests of the board be so presented to the manufacturers as to emphasize the fact that they come from the President of the United States, and that the requests be framed so carefully and be technically so correct that those to whom they are presented will be impressed with the fact that the board, acting under the authority of the President, knows exactly what it wants.

ATTITUDE OF MANUFACTURERS.

There are approximately 1,200 manufacturers of wool goods in the United States. They may be classified in the following manner in respect to their probable attitude toward the inquiry:

1. Those who welcome the investigation as marking an improvement in the methods of revising our tariff laws and who will extend to the board every facility to obtain the information regarding their (the manufacturers') business.

2. Those who are likewise favorably disposed toward the inquiry, but who hesitate to give the information desired for fear it will be used to their injury.

3. Those who are actively opposed to the inquiry, and who will seek to defeat its purpose and discredit it before the public.

4. Those who have made no study of the tariff question, who look upon the tariff agitation as an unmitigated evil and upon the inquiry as being calculated to foster agitation.

DIRECT APPLICATION TO MANUFACTURERS.

The nature of the inquiry is such that it requires the board to apply directly to the manufacturers for the information desired. What is wanted is all the pertinent facts, vouched for by those in a position to know. The individual manufacturers and head officers of the manufacturing corporations are the only ones in that position, and the inquiry should therefore be confined to them. If the board should apply to the manufacturers' associations for the information, the individual manufacturers, with the exception of those included in class 1, would be disposed to let the association act for them, and the inquiry would be a failure. It is necessary for this investigation to go into the details of manufacturing wool goods and to obtain facts from as many mills as possible in order that the information may represent the actual conditions in the industry. This can be done only by direct dealings between the board and those in control of each manufacturing plant. For these reasons I advise that no requests for information be addressed to the manufacturers' associations.

CONFIDENTIAL INFORMATION.

It is important that the manufacturers be made to understand that the information they give to the board will be held in strict confidence. This will overcome the objections raised by those in class 2.

The opposition of those included in class 3 will in great measure be overcome by letting it be understood that while the board is conducting the inquiry on a carefully prepared and entirely practicable plan, and is sparing no effort to make the inquiry successful, at the same time the board has taken into consideration the possibility that a partial failure might result from the refusal of a portion of the manufacturers to give the desired information, and that in such an event the only course open to the board will be to lay before the President such information as it may have obtained and state the reason for the failure to obtain more. I believe there are very few manufacturers who would be willing to take the risk of the public discredit they would bring on the cause of protection by such a refusal to cooperate in the investigation.

ACCOUNTANTS AS INVESTIGATORS.

As this inquiry is the first of its kind, it will probably be necessary for the board to have its representatives interview the manufacturers, explain the object of the investigation, and confer with them regarding the best means of obtaining the desired information. In that event I advise that the work of inquiry among the mills intrusted to accountants and not to experts in wool manufacturing. Wool manufacturers dislike to give out information regarding their business, and especially to allow persons familiar with wool manufacturing to inspect their plants and processes. If the plan for the inquiry is perfected before the work is started it will be possible for competent accountants to carry it out to better advantage than could manufacturing experts.

THE COOPERATION OF MANUFACTURERS.

If the requests for information are correctly framed and tactfully presented to the manufacturers by the board, what at first seemed a problem so difficult as to be practically impossible, may turn out to be comparatively easy of solution. Opposition may be disarmed and enthusiastic cooperation be obtained from manufacturers who have become convinced that they have every reason to aid in making the investigation a success in order that the tariff protection to their industry may be placed on the solid foundation of popular confidence in its fairness.

An encouraging feature of the situation is found in the fact that success does not necessarily depend on obtaining the information from every one of the wool manufacturers of the country. Returns from a fair proportion of representative mills in each branch of the business would make the investigation successful. I am encouraged to believe that a sufficient number of manufacturers will cooperate to make the work of the board a success.

FOREIGN COST.

The work of determining the difference between the domestic and foreign cost of production will be but half done when the domestic cost is found. The foreign cost must be found in order that the two may be compared. Nothing appears more certain than that foreign manufacturers will refuse to give the board the desired information regarding the cost of production in their mills. The experience of our consuls in 1908 in a like inquiry, and particularly the response to the request of Consul Albert Halstead dated August 25, 1908, and addressed to the manufacturers of Birmingham, England, confirms this belief.

It is useless for me to dwell here on the supposed difficulties. The task is set for the board, and everything possible must be done to accomplish it. Then, if it is found to be impossible, that fact can be made plain. Care must be taken that whatever information is obtained regarding the foreign industry shall be in the same form as that adopted for the domestic industry in order that a comparison may be made. The machinery and processes are similar both at home and abroad. In the worsted spinning industry the greater part of the machinery in American and foreign mills is from the same builders. The same materials are used, and the manufactured products vary no more between American and foreign mills than between the different mills in America or abroad.

That it may be found impossible to obtain information regarding the difference between the domestic and foreign costs of production to the extent required for applying the formula laid down as the true principle of protection is no reason for discouragement regarding this inquiry. To determine that complete success is impossible would be a step in the right direction, as it would be a fact for the guidance of our lawmakers. Moreover, an earnest attempt to succeed, even if followed by but partial success, could not fail to elicit information of great value. This might be other than information regarding costs of production. In fact, I assume that the inquiry will cover all information that might prove of value in the framing of our tariff.

EFFECT OF IMPROVING QUALITY OF RAW MATERIAL.

Information of this character will include that relating to the great improvement in the intrinsic value of cloth by increasing the supply of the better grades of the raw material. The real value of a wool garment as regards durability, warmth, and appearance is based first of all on the quality of the raw material; that is, wool and wool by-products. At the same time the cost of this raw material is usually but a small part of the cost of the garment, the remainder of the cost being due to manufacturing the cloth and the clothing, together with the cost of distribution. Thus an improvement in the quality of the wool raw material, which costs comparatively so little, will increase the intrinsic value of the entire garment. It is my belief the board will find on investigation that in many cases the correction of defects in schedule K will more than double the real value of the wool garment without increasing the cost.

Another point is the relative importance of the different raw materials in providing the people with wool clothing. To determine this it will be necessary to obtain information as to the available quantity of such materials and their value.

A STUDY OF ARGUMENTS IN THE PAST.

Another branch of the inquiry might include a study of the statements made by those interested and disinterested men who have engaged in the discussion of schedule K since it was framed. While much of this discussion has been special pleading, still it contains valuable information which can be sifted from the chaff and which would aid the board in this investigation.

COST OF DISTRIBUTION.

The foreign and domestic methods of distributing wool and wool products to the consumers should be carefully studied and compared. Some of the differences may indicate where the American system is inferior, others where it is superior to the foreign. And others may be due to the unavoidable differences in the conditions under which business is carried on.

THE INVESTIGATING STAFF.

I come now to the third and last part of your memorandum, in which you ask for the names of persons qualified to do the work of investigating the woolen schedule. I will endeavor in the near future to give you the names of such persons, but at this time will confine myself to some general observations regarding the manner in which I think the work should be done.

Some member of the board should take personal charge of the investigations of schedule K. As none of you are familiar with the details of wool manufacturing the member assigned to this work should begin at once a diligent and systematic study of the different branches of the trade. Arrangements should be made by which he could devote his entire time in woolen and worsted mills for a period of four or five weeks. With the aid of a competent instructor he could thus become sufficiently familiar with the materials and processes of wool manufacturing to direct this branch of your inquiry. I believe this to be necessary to success in your work. Many complicated questions, involving both technical conditions and personal interests, will be presented to you for solution before your work is done. The decisions can not be made by others; they must be made by you. And they should be made not on information or belief, but on knowledge. That knowledge can be acquired only by personal study of and contact with the industry under working conditions. Enthusiasm, industry, and a trained mind will enable the preliminary information to be gained in a few weeks, and the additional knowledge will be rapidly acquired during the progress of the investigation.

This plan will simplify and facilitate every branch of the inquiry. It will enable you to select on your own judgment proper persons to assist you. It will enable you to detect those who might mislead you through ignorance or from design. It will enable you to confine the work to what is required and to cut out the superfluous details with which such an inquiry as this is likely to be overloaded. The board will be assisted in this inquiry by a staff of active assistants and by the advice of those who take no actual part in the work of investigation. I recommend that the active staff of the board be composed of those who are not interested directly or indirectly in the production or sale of wool materials. Advice may properly be obtained from anyone believed to be capable of giving it. The board will not be responsible for it and need follow it only so far as you think it advisable, and under such conditions a man giving advice in good faith would try to frame his suggestions so they would be justified by events whether you adopted them or not.

By this plan you would be able to avail yourselves of the assistance of anyone you considered trustworthy and yet be certain of having a compact working force to carry on the work of investigation in accordance with your own plans and without the embarrassment of any connection whatever with the producing interests affected by schedule K.

Respectfully submitted with the earnest hope that your work may be successful in every respect.

SAMUEL S. DALE.

Prof. H. C. EMERY, *chairman*.
Hon. JAMES B. REYNOLDS.
Hon. ALVIN H. SANDERS.

THE TARIFF ON WOOL AND WOOL GOODS.

IRREGULARITIES TO BE REMOVED.

It is evident that one of the most difficult problems before the Committee on Ways and Means is the removal of the inequalities in the tariff on wool and woolens. The new tariff should afford adequate protection to all branches of the industry. That is the basic principle on which the revision must be made. It should also bear equally on all branches, favoring none at the expense of the others or of the consumer. The inequalities encountered first are those in rates on wool. As it comes from the sheep's back and is received at the mill wool contains a widely varying amount of grease and dirt. Some lots may consist of three-quarters grease and one-quarter clean wool, other lots one-quarter grease and three-quarters clean wool, and no two lots shrink exactly alike.

THE FUNDAMENTAL DIFFICULTY.

The Dingley law fixes the tariff on wool at a uniform amount per pound of grease wool, regardless of the amount of grease it contains. Here lies the fundamental and insurmountable difficulty with a specific duty on grease wool. A duty of 11 cents a pound amounts in fact to 44 cents per pound of clean wool, if there is 75 per cent of grease present, and to only 14 $\frac{2}{3}$ cents per pound of clean wool if there is 25 per cent of grease. The result is that the 11 cent duty on wool excludes the heavy shrinking wools from the country. In effect the laws says: "No wool shrinking over a certain amount shall be imported into the United States, except at a loss." It is impossible to escape this prohibition by scouring the wool abroad, because the law expressly provides that the duty on scoured wool shall be three times the duty on grease wool.

BURDENS ON THE INDUSTRY.

The wools required by the carded woolen industry are the short, heavy shrinking grades. This explains one reason why the specific duty on wool is a serious burden on the carded woolen industry and bears lightly on the worsted trade, for which the light-shrinking wools are chiefly adapted.

DEPRIVED OF RAW MATERIAL.

Deprived wholly of any supply of foreign wool, the carded woolen industry is forced to rely on the domestic clip, which provides less than half the wool (clean weight) used in the country. This domestic supply is still further restricted by the fact that worsted machinery has been steadily developed so as to comb and spin shorter wools for worsted goods. This is a second reason why the carded woolen industry is placed at a disadvantage.

Restricted to a small part of a small domestic clip, the woolen manufacturer turns to the by-products of worsted manufacture and to reworked wool (shoddy) for a supply of raw material, and again finds conditions adverse to him. The duty on noils, the by-product of worsted combing, which the worsted spinner can not use, is so high as to prohibit importations, and as a result the carded woolen manufacturer is forced to pay the worsted manufacturer a high price for a very limited supply of domestic noils.

THE CLOTHING OF THE POOR.

The carded woolen manufacturer finds a similar condition when he turns from noils to wool waste and reworked wool. Prohibitory duties on the foreign supply restrict him to the narrow limits of the home supply.

The products of the carded woolen industry are necessary in order to provide the people with warm clothing at a low price. They are preeminently the clothing of the poor and of those in moderate circumstances. The effect of the present law has been to make cotton, instead of carded woolen cloth, the substitute for the higher priced worsted, and thus deprive the consumer of an adequate supply of warm clothing at a moderate price.

STARVING THE CARDED WOOLEN INDUSTRY.

It is difficult to avoid the conclusion that the carded woolen industry has been starved, while the worsted industry has been placed in a favorable position by reason of the low duty on light shrinking worsted wools and of the high prices at which the worsted by-products have been sold to carded woolen and knitting mills.

It is not surprising that the carded woolen industry has languished under these conditions, nor that those identified with it should now appeal vehemently for a recasting of the tariff on wool and wool goods at the coming revision. It is our purpose here not to recommend a definite schedule, but rather to point out facts that would aid in framing such a schedule. If objection is raised to the abandonment of specific duties on wool on the score of danger of undervaluations, the question may well be asked, "Is the evil of undervaluations with an ad valorem tariff, which evil can be limited by the vigilance of the Government, likely to be greater than the evil of discrimination against heavy shrinking wools, which evil can not be limited in any way whatever?" It is up to the advocates of specific rates on wool to propose a schedule under which such rates will not favor some and discriminate against others.

A UNIFORM TARIFF ON WOOL GOODS.

Another problem before the committee, and which is still more closely interlaced with the technical details of textile manufacturing, is the framing of a schedule of rates on wool fabrics which will be uniform on all grades of goods. The first step in reaching a solution of this problem is to obtain facts. The present law is based on the assumption that it requires 4 pounds of grease wool to make 1 pound of wool cloth. The error of such a general proposition is at once evident because of the variable shrinkage of grease wools. But it is not enough for the committee to know that the 4 to 1 ratio is wrong. They are charged with the task of finding out what is right. It will aid them in this search to know just how the present law with its 4 to 1 ratio has operated on different fabrics. With this object in view, we have applied the Dingley rates to a number of wool fabrics which have either been made or analyzed by us personally. We know as well as it is possible for anyone to know how much material is required to manufacture a pound of the respective cloths, and present here the results of our calculations. We believe this is the first time that the results of such an examination of the Dingley schedules have been published:

	Duty.	Per cent.
A25; worsted serge; 18.4 ounces per yard, 54 inches wide; 10,000 yards, at \$1, \$10,000; 11,500 pounds cloth; this requires 21,941 pounds grease wool:		
Dingley duty—		
11,500 pounds cloth, 44 cents.....	\$5,060.00	50.6
55 per cent of \$10,000.....	5,500.00	55
Total duty.....	10,560.00	105.6
Actual compensatory required; 21,941 pounds grease wool, 11 cents.....	2,413.51	24.1
Actual protection.....	8,146.49	81.5
A96; cotton warp dress goods; 6.7 ounces per yard, 50 inches wide; 10,000 yards at 25 cents, \$2,500; 4,187 pounds cloth; this requires 4,515 pounds of grease wool:		
Dingley duty—		
4,187 pounds cloth, 44 cents.....	1,842.28	73.7
50 per cent of \$2,500.....	1,250.00	50
Total duty.....	3,092.28	123.7
Actual compensatory required, 4,515 pounds grease wool, 11 cents.....	496.65	19.9
Actual protection.....	2,595.63	103.8
C96, worsted dress goods, 6.7 ounces per yard, 50 inches wide; 10,000 yards, at 40 cents, \$4,000; 4,187 pounds cloth; this will require 9,760 pounds of grease wool:		
Dingley duty—		
4,187 pounds cloth, 44 cents.....	1,842.28	46
55 per cent of \$4,000.....	2,200.00	55
Total duty.....	4,042.28	101
Actual compensatory required, 9,760 pounds grease wool, 11 cents.....	1,073.60	26.8
Actual protection.....	2,968.68	74.2
E119; worsted serge, piece dyed; 14½ ounces per yard, 56 inches; 10,000 yards, at 90 cents, \$9,000; 9,062 pounds cloth; this would require 20,945 pounds grease wool:		
Dingley duty—		
9,062 pounds cloth, 44 cents.....	3,987.28	44.3
55 per cent of \$9,000.....	4,950.00	55
Total duty.....	8,937.28	99.3
Actual compensatory required, 20,945 pounds, 11 cents.....	2,303.95	25.6
Actual protection.....	6,633.33	73.7
A220; cotton worsted; 14 ounces, 55 inches wide; 10,000 yards, at 50 cents, \$5,000; 8,750 pounds cloth; this would require 3,125 pounds grease wool:		
Dingley duty—		
8,750 pounds, 44 cents.....	3,850.00	77
50 per cent of \$5,000.....	2,500.00	50
Total duty.....	6,350.00	127
Actual compensatory required, 3,125 pounds, 11 cents.....	343.75	6.8
Actual protection.....	6,006.25	120.2

	Duty.	Per cent.
A207; cotton warp, casket cloth, cotton, wool and shoddy, 15½ ounces per yard, 68 inches wide; 10,000 yards, at 50 cents, \$5,000; 9,688 pounds cloth; this will require 2,375 pounds cotton warp, 1,600 pounds grease wool, 1,125 pounds raw cotton, 9,563 pounds shoddy:		
Dingley duty—		
9,688 pounds cloth, 44 cents.....	\$4,262.72	85.2
50 per cent of \$5,000.....	2,500.00	50
Total duty.....	6,762.72	135.2
Actual compensatory required—		
1,600 pounds, 11 cents.....	\$1,760.00	
9,563 pounds, 5 cents.....	478.15	
	2,238.15	44.8
Actual protection.....	4,524.57	90.4
608; piece-dyed kersey; 25 ounces per yard, 55 inches wide; stock; back warp, 40 per cent; Oregon wool, 60 per cent shoddy; face warp and filling, 50 per cent; California wool, 50 per cent shoddy; 10,000 yards, at \$1.25, \$12,500; 15,625 pounds cloth; this would require 32,426 pounds wool in grease, 13,167 pounds shoddy:		
Dingley duty—		
15,625 pounds cloth, 44 cents.....	6,875.00	55
55 per cent of \$12,500.....	6,875.00	55
Total duty.....	13,750.00	110
Actual compensatory required—		
32,426 pounds, 11 cents.....	\$3,566.86	
13,167 pounds, 5 cents.....	658.35	
	4,225.21	33.8
Actual protection.....	9,524.79	76.2
E382; cotton warp beaver; 28 ounces per yard, 55 inches; 10,000 yards at 75 cents, \$7,500; 17,500 pounds; this quantity would require 3,611 pounds raw cotton, 1,309 pounds cotton warp, 22,123 pounds shoddy, 4,886 pounds fine wool, 1,137 pounds coarse wool:		
Dingley duty—		
17,500 pounds, 44 cents.....	7,700.00	102.7
50 per cent of \$7,500.....	3,750.00	50
Total duty.....	11,450.00	152.7
Actual compensatory required—		
6,023 pounds, 11 cents.....	\$662.53	
22,123 pounds, 5 cents.....	1,106.15	
	1,768.68	23.6
Actual protection.....	9,681.32	129.1
E24; Irish frieze; 34 ounces per yard, 55 inches; stock, 50 per cent wool and 50 per cent waste; 10,000 yards at \$1, \$10,000; 21,250 pounds cloth; this requires 23,625 pounds grease wool, 17,719 pounds shoddy and waste:		
Dingley duty—		
21,250 pounds, 44 cents.....	9,350.00	93.5
50 per cent of \$10,000.....	5,000.00	50
Total duty.....	14,350.00	143.5
Actual compensatory required—		
23,625 pounds, 11 cents.....	\$2,598.75	
17,719 pounds, 5 cents.....	885.95	
	3,484.70	34.8
Actual protection.....	10,865.30	108.7
A211; wool cassimere, Territory wool; 13 ounces per yard, 54 inches wide; 10,000 yards at 85 cents, \$8,500; 8,125 pounds cloth; this will require 32,143 pounds grease wool, shrinking 65 per cent:		
Dingley duty—		
8,125 pounds cloth, 44 cents.....	3,575.00	42
55 per cent of \$8,500.....	4,675.00	55
Total duty.....	8,250.00	97
Actual compensatory required, 32,143 pounds, 11 cents.....	3,535.73	41.6
Actual protection.....	4,714.27	55.4
DE; wool dress goods, piece dyed; 6 ounces per yard, 50 inches wide; 10,000 yards at 40 cents, \$4,000; 3,750 pounds cloth; this would require 14,823 pounds grease wool, shrinking 65 per cent:		
Dingley duty—		
3,750 pounds cloth, 44 cents.....	1,650.00	41.2
55 per cent of \$4,000.....	2,200.00	55
Total duty.....	3,850.00	96.2
Actual compensatory required, 14,823 pounds, 11 cents.....	1,630.53	40.8
Actual protection.....	2,219.47	55.4

It will be noticed that the "actual compensatory" is based on the amount of grease wool extended at 11 cents a pound and of waste or shoddy extended at 5 cents. This is on the assumption that the cost of wool in this country is increased by the full amount of the duty, which is not always the case. In the case of waste and shoddy 5 cents a pound has been allowed, because it would clearly be wrong to take the full amount of the duty—10 to 20 cents—which in many cases is more than the total cost of the material in question.

The following summary enables a comparison to be made for each of the fabrics between the duty as divided between "compensatory" and "protective" in the present law and as actually divided in practice.

	Dingley duty.		Actual.		Total duty.
	Compensatory.	Protective.	Compensatory.	Protective.	
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	
A25; worsted serge.....	50.6	55	24.1	81.5	105.6
A96; cotton warp dress goods.....	73.7	50	19.9	103.8	123.7
C96; worsted dress goods.....	46	55	26.8	74.2	101
E119; worsted serge, piece dyed.....	44.3	55	25.6	73.7	99.3
A220; cotton worsted.....	77	50	6.8	120.2	127
A207; cotton warp casket cloth.....	85.2	50	44.8	90.4	135.2
608; piece dyed kersey.....	55	55	33.8	76.2	110
E382; cotton warp beaver.....	102.7	50	23.6	129.1	152.7
E24; Irish frieze.....	93.5	50	34.8	108.7	143.5
A211; wool cassimere.....	42	55	41.6	55.4	97
DE; woolen dress goods.....	41.2	55	40.8	55.4	96.2

THE PART OF WISDOM.

One of the defects in the present tariff on wool goods, and perhaps the only one that attracts the attention of the public, is that the aggregate ad valorem rates amount in many cases to considerably more than 100 per cent. Popular attention is also directed to the fact that the tariff is prohibitory on the cheaper grades of goods. This fact is being seized by politicians as a basis for the cry of discrimination against the poor and in favor of the rich. It is the part of wisdom for the textile trade to look the situation squarely in the face and devise some plan by which the friends of protection at Washington may be able to frame a law that will not only avoid favoring one branch of the wool and wool-goods trade at the expense of the other, but which will remove all grounds for the belief on the part of the public that the rates favor the producer at the expense of the consumer.

REVISION BASED ON JUSTICE.

When inequalities in a tariff are corrected some one must give up an unfair advantage in justice to others. The woolgrower, the worsted spinner, the woolen manufacturer, and Congress, representing all interests, including the consumer, should get together with the determination to incorporate in the tariff bill of 1909 the square deal of which we have heard so much for seven years. The woolgrower may find that he needs protection against evils at home more than against imports from abroad; the worsted spinner may realize that his higher interests require a yielding up of some of the advantages he now possesses, while the carded woolen manufacturer would doubtless gladly exchange such tariff protection, as he does not need for a supply of the raw material, without which he can not live. And this general equalization of rates, while affording adequate protection to American industry, will satisfy the consumer, who is the final arbiter in this country.

A majority of the people in the United States believe in adequate protection and want it incorporated in the new bill. They also want excessive protection abolished. Under these conditions the course for the textile industry to adopt is plain. It is to aid Congress to determine what is adequate protection and to insist that the rates on all goods shall be lowered or raised as may be necessary to bring them to the "adequate" mark.

BOSTON, MASS., December 25, 1908.

HOW MUCH WOOL TO MAKE A POUND OF CLOTH?

THE LEGAL REPLY.

Every wool-goods tariff schedule placed on the statute book since 1861 has, with one exception, tried to give an answer to this question. The exception was the Wilson bill which made an answer unnecessary by making wool free of duty. And with this exception the legal reply has been with slight variation, "4 pounds of grease wool." The connection of this question with the wool-goods tariff results from the specific duty on wool. This in turn necessitates what is known as the compensatory duty on wool goods, which is assumed to be equivalent to the duty levied on the wool used in manufacturing the goods. The Dingley duty on wool of the first class is 11 cents a pound. The law assumes that because of the tariff the American manufacturer is compelled to pay 11 cents a pound more for the wool than it costs the foreign manufacturer. Accordingly a specific duty per pound of cloth equal to the duty on 4 pounds of grease wool of the first class is placed on wool goods valued above a certain amount, to compensate the American manufacturer for the increased cost of the raw material. This is legally supposed to leave the American and foreign wool-goods manufacturer in the same relative position as would prevail under free trade in wool. For goods valued at 40 cents a pound or less the ratio is 3 pounds of grease wool to 1 pound of cloth. The medium and high grades of goods, however, come within the four-to-one classification, and, owing to the low valuation the specific duty on the low-grade goods is higher, rated by value, than on the medium and high-grade cloths.

To protect the American manufacturer against competition with cheap labor an ad valorem duty is placed on wool goods in addition to the compensatory specific duty already mentioned. The two constitute the system of compound duties, a combination of a specific duty to balance the duty on wool, with an ad valorem to protect the manufacturer.

A COMPREHENSIVE TEST.

While every tariff act that has levied a duty on wool since 1861 has been based on the assumption that 4 pounds of grease wool is required for a pound of cloth, this conclusion has been vigorously disputed, especially when the tariff happened to come up for revision. It was widely discussed in 1884, 1885, and 1886 in connection with the Morrison tariff bills, and the widely divergent opinions then expressed by experts awakened in my mind a desire to determine the facts beyond question. In the last-named year an unusual opportunity presented itself to me to make a test of the shrinkage in manufacturing carded woollen cloth. In the latter part of that year, 1886, I took charge, as superintendent, of the Hecla Mill at Uxbridge, Mass. The conditions were very favorable for a test. The mill was practically new, there being but a small amount of old yarn on hand at the beginning. A very uniform grade of all wool goods was manufactured. The product included a fine cassimere fabric made of all new wool, and a line of all wool chevrets in which the waste or by-products of the mill were consumed. No cotton was used. The late S. M. Wheelock was treasurer of the company and he frequently made the remark when passing through the mill, "When cotton comes into this mill I go out of it." He stayed in. It was in this mill and during the period covered by the test, that the cloth was made for the uniforms worn by Gen. Harrison's regiment at his inauguration as President of the United States on March 4, 1889.

When taking charge of the mill I had, of course, an accumulation of mill data bearing on the shrinkage of stock in the various processes of manufacturing. But these statistics had been obtained by tests of isolated lots, such as are necessarily made by every manufacturer. Such tests were not comprehensive enough to settle beyond dispute the question of shrinkage in manufacturing. What was needed was a test covering the production of an entire mill for a period of years, so as to include practically all of the possible variations in material and processes, and give a result that could be safely taken as an average. Stimulated by the discussion of the tariff and by the exceptional opportunity, I resolved to make the test on the extensive scale that was then possible.

THE ONLY BASIS FOR THE TEST.

The scoured weight of the wool was selected without hesitation for the test. Of course the tariff law was based on grease weight, but the adoption of such a basis would have made my test worthless. This is evident to anyone having any knowledge of manufacturing wool goods. Grease wool is received at the mill in lots of widely varying shrinkage in scouring, no two lots yielding the same percentage of clean wool, the loss being due to the removal of grease and dirt, which is allowed to run to waste into the stream.

The following lots used at the Hecla Mill during the test show the wide variation of shrinkage in scouring and the worthlessness of any test such as I had in mind if based on the grease weight of the wool:

Date.	Bought of—	Weight.	Wool.	Shrinkage in scouring.
		<i>Pounds.</i>		<i>Per cent.</i>
May 18, 1888	H. B. & Co.....	18,901	Texas.....	76
Apr. 10, 1890	J. K. & Co.....	23,836	Oregon.....	69
Feb. 17, 1887	H. B. & Co.....	43,532	California.....	62
Apr. 28, 1887	C. Bros.....	17,424	Oregon.....	47
June 24, 1887	L. & M.....	30,425	Three-eighths blood.....	35
June 12, 1890	H. K. & Co.....	10,092	East India.....	16

It was part of my duties as superintendent to weigh the scoured and dyed wool in batches to the pickers, and this I did personally for the entire period of the test with the exception of about three weeks. This not only gave me a personal knowledge of the amount of material delivered, but enabled me to keep a separate record of the new stock and by-products, which was essential to accurate results. The test could have been continued longer, but it was brought to a close at the taking of the regular inventory on October 31, 1890, because at that time the spun yarn on hand was nearly equal to the yarn that had been purchased and used during that period. This condition would probably not occur at any future inventory, and, consequently, the account was made up at the end of 46 months.

A SUMMARY OF THE RESULTS.

The results are summarized in the accompanying statement. The first summary takes account of new stock only, the by-products being omitted, as they were taken into account when the original material was delivered to the pickers. The finished cloth includes the cloth woven but unfinished on October 31, 1890, a deduction for loss in finishing being made at the average rate for the 46 months. This summary gives the loss of weight which can not be accounted for by any tangible material, amounting to 21.12 per cent of the weight of the scoured and dye material delivered to the pickers. In other words, 1.27 pounds of scoured wool produced 1 pound of finished cloth.

The second summary takes account of all material delivered to the pickers, whether new stock or waste products, and the loss here indicated, 35.11 per cent, includes both that which can be accounted for by tangible by-products and that which can not. In other words 1.54 pounds of wool and waste products was delivered to the pickers for every pound of finished cloth produced.

These are the results of what is probably the most extensive test ever made to determine the shrinkage in manufacturing wool goods. It was made because of its bearing on the tariff question. It necessitated a great deal of extra labor and care for the four years, from 1886 to 1890, and the record has been carefully guarded for over 18 years while waiting for the time for its publication to arrive.

Shrinkage in manufacturing carded-woolen cloth, in pounds—Test made at the Hecla Mill, Uxbridge, Mass., during the 46 months from December 31, 1886, to October 31, 1890.

Summary No. 1:

New stock delivered to pickers—		
Wool (scoured and dyed).....	1,087,616	
Camel's hair noils.....	600	
Waste (bought).....	29,370	1,117,586
Yarn on hand Dec. 31, 1886.....	1,000	
Yarn bought.....	29,650	30,650
New stock delivered to the machinery.....		1,148,236
Stock on hand Oct. 31, 1890.....	46,213	
Stock sold.....	947	47,160
Stock consumed.....		1,101,076
Finished cloth.....		868,548
Loss (invisible).....		232,528
Loss (invisible).....per cent..		21.12

Summary No. 2:

New and old stock delivered to pickers.....		1,354,946
Yarn on hand Dec. 31, 1886, and bought.....		30,650
New and old stock delivered to machinery (gross).....		1,385,596
Stock on hand Oct. 31, 1890, and sold.....		47,160
New and old stock delivered to machinery (net).....		1,338,436
Finished cloth.....		868,548
Loss (visible and invisible).....		469,888
Loss (visible and invisible).....per cent..		35.11

A LEGAL FICTION.

What are the conclusions to be drawn from this investigation? The most obvious one is that the present legal ratio of 4 pounds of grease wool to 1 pound of cloth is worthless, a legal fiction resting on a grease and dirt basis, capable of justifying almost any ratio that might be named. Take, for example, the second summary and the six lots of grease wool given above, used at the Hecla Mill. Is $6\frac{3}{8}$ pounds of grease wool required for 1 pound of cloth? Certainly; if it is such Texas wool as was bought of H. B. & Co. on May 18, 1888. Is 5 pounds of grease wool required for 1 pound of cloth? Of course; if such Oregon wool as was bought of J. K. & Co. on April 10, 1890. Is 4 pounds of grease wool required for 1 pound of cloth? Yes; if such California wool as was bought of H. B. & Co. on February 17, 1887. Is 3 pounds of grease wool required for 1 pound of cloth? To be sure; if such Oregon wool as was bought of C. Bros. on April 28, 1887. Is $2\frac{3}{8}$ pounds of grease wool required for 1 pound of cloth? Without a doubt, if such three-eighths blood wool as was bought of L. & M. on June 24, 1887. Is $1\frac{7}{8}$ pounds of grease wool required for 1 pound of cloth? Assuredly; if such East India wool as was bought of H. K. & Co. on June 12, 1890.

The average yield of cloth from grease wool, even if it could be known, could not be safely adopted for assessing duties on goods, because wool is used by the mills, not in lots of average shrinkage, but to suit the fabric to be made. One cloth may be made of the lightest shrinking wool; another, of the heaviest.

ANY RATIO IS POSSIBLE.

And this is not all. The grease and dirt basis has been legally made to expand far beyond the limits of shrinkage in scouring. The wool-goods schedule of the tariff law not only states that 4 pounds of wool, carrying widely

varying proportions of grease and dirt, is required for 1 pound of cloth, but it also includes under this designation all fabrics containing any wool whatever, whether made of all wool, or part of wool and the remainder of cotton, shoddy, waste, silk, flax, or any other material, animal, vegetable or mineral. Thus the possibilities of establishing ratios between grease wool and finished cloth are extended ad infinitum. Not only is 4 pounds of grease wool required for 1 pound of cloth but 1 pound of grease wool will make 4 pounds or 400 pounds; yes—or 4,000 tons, in fact any quantity of cloth that may be named, all depending on the proportions in which the wool is mixed with other material in the fabric. Under this legal classification there is no ratio between grease wool and finished cloth in the entire gamut of arithmetic that can not be supported by isolated examples from mill practice. The tariff law makes the ratio 4 to 1, and on this legal fiction the structure of a specific duty on wool and a compound duty on goods is erected.

This system of wool and wool-goods duties should be reformed at the coming revision of the tariff. The evils resulting from it are numerous, serious, and obvious. If that reform is hastened by this plain statement of fact, I shall feel well repaid for the effort expended in making the test from 1886 to 1890, and for having treasured the data up to the present time.

SAMUEL S. DALE.

BOSTON, MASS., *January 20, 1909.*

BOSTON, MASS., *December 10, 1921.*

HON. BOIES E. PENROSE,
Chairman Committee on Finance,
Washington, D. C.

SIR: The Carded Woolen Manufacturers Association asks that the tariff on wool, wool by-products, reclaimed wool, and partly or wholly manufactured wool goods be based on value. We make this request because specific duties based on any unit of weight or measure are unfair when levied on products varying so widely in value as do wool and manufactures of wool. The market price of a pound of wool is the measure of its value for manufacturing purposes, and consequently is the only basis for a tariff that is fair to all. If the duty is specific, it is certain to be unequal and unjust, discriminating against one class of users and conferring special favors on others. For these reasons we ask that all duties placed on wool and manufactures of wool, on what we sell as well as on what we buy, shall be ad valorem and adequately protective for the wool growing and wool manufacturing industries.

THE TARIFF ON WOOL.

The value of wool varies widely because of the difference in quality and condition, quality being used here to designate the fineness of the fiber, length, and strength of staple, color, elasticity, and spinning qualities. Wool as it comes from the sheep's back varies widely in condition because of the varying quantity of foreign materials, burrs, seeds, and shives present, but one of the most important factors in the condition of grease wool affecting its value per pound for manufacturing purposes is the quantity of natural grease, dirt, and other substances on the fiber that are removed by the process of scouring. The substances removed by scouring wool vary widely from say 80 to 15 per cent of the original grease weight, making the yield or "scoured content" from 20 to 85 per cent. This varying shrinkage in scouring, combined with the variation in quality, results in extreme variations in the value of grease wool per pound.

SPECIFIC DUTY ON GREASE WOOL.

The effect of placing a uniform specific duty on grease wool subject to such wide variations in value is self-evident. It results in enormous variations in the ad valorem equivalents, as is shown at any sale of any considerable quantity of wool; for example, 60,000,000 pounds of unwashed wool sold at London at the time (1909) the last protective tariff was framed. Exclusive of the small quantity of wool sold for less than 6 cents per pound, the highest and lowest prices at that sale and the specific duties imposed at that time with

their ad valorem equivalents were as follows, the other prices and duties ranging between these extremes:

- Unwashed wool, 60,000,000 pounds.
- Highest price, 47 cents per pound.
- Specific duty, 11 cents per pound.
- Ad valorem equivalent, 23.4 per cent per pound.
- Lowest price, 6 cents per pound.
- Specific duty, 11 cents per pound.
- Ad valorem equivalent, 184 per cent per pound.

The specific duty, when reduced to a percentage of the market value, which measured the utility of the wool for supplying human necessities, varied from 23 cents to \$1.84 on a dollar. The purchaser of a thousand dollars' worth of the 47-cent wool at London was able to bring it into the United States by paying a duty of \$234, while the purchaser of a thousand dollars' worth of the 6-cent wool could bring it into the United States only by paying a duty of \$1,840.

In order to illustrate in more detail the effects of a specific duty on grease wool, we have classified according to price the 12,000,000 pounds of grease wool sold March 12-17, 1914, at the last London wool auction held before the war, and calculated the ad valorem equivalent of the Payne-Aldrich specific duty of 11 cents per pound and of the so-called "emergency" specific duty of 15 cents per pound for each value with the following result:

Ad valorem equivalents of specific duties applied to 35,054 bales (12,000,000 pounds) of grease wool sold at London Mar. 12-17, 1914.

[Prices in cents per pound at \$4 per pound sterling.]

Bales.	Cents per pound.	11 cents.	15 cents.	Bales.	Cents per pound.	11 cents.	15 cents.
		<i>Per cent.</i>	<i>Per cent.</i>			<i>Per cent.</i>	<i>Per cent.</i>
18.....	30.8	35.7	48.7	697.....	14.2	77.4	105.6
12.....	30	36.7	50	271.....	14.1	78	106.3
52.....	29.2	37.9	51.7	428.....	13.3	82.7	112.7
24.....	28.3	38.8	52.9	390.....	12.9	85.2	116.2
196.....	27.5	40	54.5	397.....	12.5	88	120
329.....	26.7	41.2	56.2	126.....	12.1	90.9	123.9
404.....	25.8	42.6	58.1	151.....	11.3	97.3	132.7
794.....	25	44	60	57.....	11.2	98.2	133.9
948.....	24.2	45.5	62	138.....	10.8	101.8	138.8
1,396.....	23.3	47.2	64.3	55.....	10.4	105.7	144.2
1,574.....	22.5	48.9	66.6	135.....	10	110	150
1,706.....	21.7	50.6	69.1	81.....	9.6	114.5	156.2
2,814.....	20.8	52.8	72.1	53.....	9.2	119.5	163
3,355.....	20	55	75	3.....	8.7	126.4	172.4
4,735.....	19.2	57.2	78.1	40.....	8.3	132.5	180.7
5,376.....	18.3	60.1	81.9	11.....	7.9	139.2	189.8
4,084.....	17.5	62.8	85.7	33.....	7.5	146.6	200
1,230.....	16.7	65.8	89.8	3.....	7.1	154.9	211.2
399.....	16.2	67.9	92.5	7.....	6.7	164.2	223.9
690.....	15.8	69.6	94.9	5.....	6.2	177.4	241.9
529.....	15.4	71.4	97.4	1.....	5.8	189.6	258.5
838.....	15	73.3	100	4.....	5.4	203.7	277.7
456.....	14.6	75.4	102.7				

Excluding the small quantity of grease wool sold for less than 7½ cents per pound, the ad valorem equivalent of the Payne-Aldrich 11-cent duty applied to this 12,000,000 pounds of wool varies from 36 per cent on the highest priced wool to 147 per cent on the lowest priced; and the present emergency duty of 15 cents per pound, which is now as permanent as any part of any United States tariff law ever was, varies from 49 per cent on the highest priced wool to 200 per cent on the lowest priced. A large part of this wool was skirted, and under the emergency tariff subject to a double duty, which would double the ad valorem equivalents.

It is the unchangeable nature of specific duties to bear heavily on low and medium-priced materials, raw material, yarns, cloths, clothing, blankets, and other necessary articles that are produced at a moderate price, and to bear lightly on high-priced materials, including both raw materials and fabrics.

In connection with the injustice of the specific duty on grease wool, as shown by the variation of its ad valorem equivalents, it is well to recall certain effects which that duty had on the manufacture of wool goods in the United States dur-

ing the 46 years that, with a brief interruption, it was in force. Of the two main branches of wool manufacturing in the United States, one, the worsted industry, using wool of long staple, found in foreign markets an ample supply of raw material, in the form of light shrinking wool, which could be imported at a duty that was but a fraction of its value; while the other, the carded woolen industry, in which wools of shorter staple were used, found that its supply of raw material was mainly in the form of heavy shrinking wool which could not be imported at all, because the specific duty per grease pound was equivalent to several times its value, raising the cost of the wool far above what the carded woolen mills could afford to pay for it.

A RECORD OF DISCRIMINATION AND SPECIAL PRIVILEGE.

The destructive effects of this discrimination against the carded woolen industry and the artificial stimulation of the worsted industry by special privilege under Schedule K of 1867 are known to everyone conversant with the manufacture of wool goods during the 40 years from 1870 to 1910. During these four decades the carded woolen and worsted branches of the industry were subject to a combination of influences in addition to those resulting from the inequality of the tariff law. Among these were fashion and the more recent introduction of worsted processes in this country, both of which favored the more rapid growth of worsted manufacturing during the period named. These influences and the discrimination and special privilege under the law were so combined as to make it impossible to determine the exact effect of each on the two branches of wool manufacturing. With this explanation, the following table, compiled from the United States census reports, is submitted to show the contrast between the steady decline of the carded woolen industry and the rapid development of the worsted industry in this period of 40 years, during which the former was deprived of a large part of the raw material needed for its products, while the latter was able to secure an ample supply at a cost far below what Schedule K was popularly supposed to permit.

Year.	Wage earners.		Wages.		Materials.		Products.	
	Carded woolen.	Worsted.	Carded woolen.	Worsted.	Carded woolen.	Worsted.	Carded woolen.	Worsted.
1870.....	80,053	12,920	\$26,877,575	\$4,368,857	\$96,432,601	\$14,308,198	\$155,505,358	\$22,090,331
1880.....	86,504	18,803	25,836,392	5,683,027	100,845,611	22,013,626	160,606,721	33,549,942
1890.....	76,915	42,978	26,139,194	14,944,966	82,270,335	50,706,769	133,577,977	79,194,652
1900.....	68,893	57,008	24,757,008	20,092,738	71,011,956	77,075,222	118,430,158	120,814,344
1905.....	72,747	69,251	28,827,559	26,269,787	87,830,825	109,658,481	142,196,658	165,745,052
1910.....	52,180	111,012	22,575,175	47,151,871	65,651,634	207,786,936	107,118,858	312,624,663
Change....	1 35	2 759	1 16	2 979	1 35	2 1,352	1 31	2 1,315

¹ Per cent decrease.

² Per cent increase.

The carded-woolen industry shows a decline of 35 per cent in the number of wage earners, 16 per cent in the wages paid, 35 per cent in the value of raw materials, and 31 per cent in the value of products; while worsted manufacturing shows an increase of 759 per cent in the number of wage earners, 979 per cent in the wages paid, 1,352 per cent in the value of materials, and 1,315 per cent in the value of products.

Such are the results which discrimination and special privilege under the law have contributed so much to bring about. On one hand, you find the ruin of many hundreds of woolen mills of moderate size, that once dotted the country, located in small towns and villages, giving employment to men and women under the most favorable conditions for developing sound minds and bodies and the spirit of Americanism. On the other hand, you find the artificially stimulated growth of the worsted industry, with its concentration in huge manufacturing units in great industrial centers.

Another and an equally momentous issue is involved in the sharp contrasts found in these statistics. It is whether the American people, for whom both carded woolen and worsted mills are operated, shall, in a large measure, be deprived of the products of the great branch of wool manufacturing which is best adapted for the manufacture of durable wool clothing at a moderate price. Our appeal to-day is that of men engaged in this carded-woolen industry; but we most respectfully remind you that the inequality by which our industry has

been oppressed under the law, has, likewise, placed a heavy burden upon the great mass of the people in this country. We ask that this injustice shall not again be legalized by the wool schedule. If it is, we believe that after another period of agitation, the voters, now numbering the women as well as the men, will again sweep it from the statute book.

In addition to admitting raw material for one branch of wool manufacturing at a low duty and excluding raw material for another branch of the same industry by a high duty, the specific tariff on grease wool had another discriminatory effect. It was framed on the assumption that 3 pounds of unwashed wool was equivalent to 1 pound of scoured wool, that an 11-cent specific duty on grease weight was equivalent to a 33-cent specific duty on scoured wool. The importation of light-shrinking wool yielding approximately 2 pounds scoured for every 3 pounds of the unwashed weight, swept away one-half of the theoretical duty per scoured pound. As 3 pounds of grease wool, paying a duty of 33 cents, yielded 2 pounds of scoured instead of 1 pound, the duty per scoured pound became 16½ cents instead of the imaginary 33 cents.

The specific duty on grease excluded the heavy-shrinking wool from the United States.

It deprived the carded-woolen industry of access to raw materials in foreign markets.

It admitted light-shrinking wool at a comparatively low duty.

It gave the worsted mills access to an ample supply of light-shrinking wool suited to their requirements at a low duty.

It deprived the woolgrowers of the protection they expected.

Practically no wool shrinking more than 55 per cent was imported, a large part of it shrinking much less. Before leaving this part of the subject, let us examine a summary of over 10,000,000 pounds of grease wool imported between 1905 and 1911 by a representative American mill. (Tariff Board report on Schedule K, pp. 387-391.)

Wool.	Grease.		Shrink.	Cost, scoured.	11-cent duty.	
	Bales.	Weight.			Scoured, pound.	Per cent.
Australian merino.....	13,067	4,142,681	48.9	51.4	21.3	41.2
So. American merino.....	1,472	1,455,602	51.2	50.9	22.5	44.4
Australian crossbred.....	2,315	686,536	36.6	47.8	17.4	36.5
So. American cross'ed.....	4,457	3,736,690	36.5	36.1	17.3	48.1
Average and totals.....	21,311	10,021,509	43.8	46.5	19.6	42.2

Some things are so self-evident that dwelling on them serves only to obscure them. Among these is the rank injustice of a specific duty on grease wool. It has been condemned by the people. It has few to apologize for it or defend it. The only escape from its evils is by a duty based on value.

SPECIFIC DUTY ON SCOURED WOOL.

As has already been pointed out the value of unwashed wool depends on two principal factors; its shrinkage in scouring and what for convenience we will call quality. Scouring eliminates the shrinkage factor and the value of scoured wool is left to be determined by quality. At first glance it might seem as if scouring would to a large extent reduce the variation in value. This effect, however, is in practice largely nullified by the varying combination of shrinkage and quality, low quality being combined with both light and heavy shrinking wools. The result is that extreme variations in value per pound still persist after the grease, dirt, and other soluble materials have been removed from the fiber by scouring. This is shown by 30,644 bales of scoured wool sold at London in 1911. Exclusive of the small amount of this wool sold for less than 8 cents per pound, the highest and lowest prices for scoured wool at that sale and the specific duty with its ad valorem equivalent were as follows:

- Highest price, 61 cents per pound.
- Specific duty, 33 cents per pound.
- Ad valorem equivalent, 54 per cent.
- Lowest price, 8 cents per pound.
- Specific duty, 33 cents per pound.
- Ad valorem equivalent, 412 per cent.

Under the then prevailing specific duty on wool a thousand dollars' worth of the 61-cent scoured wool could be brought into the United States by the payment of a duty of \$540, while a thousand dollars' worth of the 8-cent wool could be brought in only by the payment of a duty of \$4,120. Both of these rates were prohibitory. The 54 per cent duty was as effective in excluding scoured wool as was the 412 per cent duty, but these extremes are given here in order to illustrate the inequality and the inherent injustice of a specific duty based on either the grease weight or the scoured weight of wool.

Without the proviso limiting the duty on wool to 35 per cent ad valorem, paragraph 1102 of the Fordney bill placing a specific duty of 25 cents per pound scoured on wool would supply a good illustration of the variations under a specific duty on scoured wool, as will be seen by the ad valorem equivalents of the 25-cent scoured weight duty on wool of different values.

Value (cents per pound) :	25-cent duty.	Value (cents per pound) :	25-cent duty.
10-----	250 per cent.	60-----	41 per cent.
20-----	125 per cent.	70-----	36 per cent.
30-----	83 per cent.	80-----	31 per cent.
40-----	62 per cent.	90-----	28 per cent.
50-----	50 per cent.	100-----	25 per cent.

A glance at table with duties ranging from 25 to 250 per cent ad valorem reveals the inherent injustice of a specific duty on scoured wool. If a specific duty if 33 cents per scoured pound were imposed the ad valorem equivalents would range from 33 to 330 per cent.

FORDNEY DUTY ON THE "SCOURED CONTENT."

Before the rates on wool, tops, yarn, and cloth can be adjusted to give the required protection without discrimination against or special privilege to any branch of wool manufacturing, it is necessary to determine on what valuation the rates are to be based. The proposed change from the foreign value to the American, from a customary standard on which experience is based, to a new standard with which there is little or no experience to serve as a guide, introduces into the tariff problem an element of uncertainty.

Take the raw wool for illustration. The United States produces less than one-half of the wool consumed, and if the people are to continue to be as well clothed with wool as in the past, a large quantity of foreign wool will have to be imported. As no one will knowingly import anything that costs more than it is worth, it is certain that under ordinary conditions the American value of imported wool will be equal to the sum of the foreign cost, import charges, duty, and profit. The Fordney bill limits the duty on wool to 35 per cent ad valorem, American valuation, so that the foreign cost and import charges will constitute 65 per cent of an American value without allowance for profit, which is calculated would raise the American value still higher and further increase the duty. Omitting profit from the calculation, \$1 worth of wool in a foreign market and the import charges of 11 per cent would amount to \$1.11. This \$1.11 being 65 per cent of the value in the United States, the American value is $(\$1.11 \div .65)$ \$1.71, on which the 35 per cent duty based on American value is $(\$1.71 \times .35)$ 60 cents, or 60 per cent of the foreign value:

Foreign value-----	\$1.00
Import charges-----	.11
35 per cent duty, American value-----	.60
Total cost-----	1.71

If an allowance of 5 per cent of the American value is made for profit, the duty, 35 per cent, and profit, 5 per cent, will amount to 40 per cent, and the \$1.11 will be 60 per cent (100 per cent — 40 per cent) of the American value, which will then be made up as follows:

Foreign value-----	\$1.00
Import charges-----	.11
35 per cent duty, American value-----	.65
5 per cent profit-----	.09
Total cost-----	1.85

The last calculation shows that the allowance of 5 per cent for profit increases the 35 per cent American valuation duty from 60 to 65 per cent of the foreign valuation.

On this conservative basis let us examine the effects of the Fordney wool duty. In its present form with the proviso limiting the duty on wool to 35 per cent ad valorem, paragraph 1102 of the Fordney bill supplies an unusually good illustration of the effects of specific and ad valorem duties on wool. The accompanying table shows the Fordney rates applied to wools varying in American value from \$1.30 to 30 cents per scoured pound; the Fordney rate of 35 per cent on the American value being taken as equal to 60 per cent of the foreign value. As a result of the ad valorem limit, the 25-cent specific duty is in effect on wool valued in the United States at 71½ cents or more per pound, the ad valorem duty being in effect on wool valued at 71½ cents or less per pound. The 60 per cent ad valorem duty on the wools below this dividing line results in a duty in exact proportion to the value of the wools, the duty paid increasing as the value of the wool increases. Above the dividing line the 25-cent specific duty is effective, and as a result the ad valorem equivalent decreases as the value increases; with American valuation, from 35 per cent on 71½ cents wool to 19 per cent on wool valued at \$1.30 per pound; with foreign valuation, from 60 per cent on the 71½ cent wool to 26½ per cent on the \$1.30 wool. Below the dividing line the duty collected under the ad valorem rate increases, as it should, with the value; above the line, the duty collected remains the same regardless of the increase in the value for manufacturing purposes.

Foreign value, cents per pound.	Import charges.	Fordney, cents per pound.	American value, cents per pound.	Fordney, foreign value.	Ad valorem, equivalent American value.	Foreign value, cents per pound.	Import charges.	Fordney, cents per pound.	American value, cents per pound.	Fordney, foreign value.	Ad valorem, equivalent American value.
94.5	10.5	25	1.30	<i>Per ct.</i> 26½	<i>Per ct.</i> 19	41.8	4.43	25	71½	<i>Per ct.</i> 60	<i>Per ct.</i> 35
85.5	9.5	25	1.20	29	21	40.9	4.6	24.5	70	60	35
76.3	8.7	25	1.10	33	23	35.1	3.9	21	60	60	35
67.6	7.4	25	1.00	36.5	25	29.2	3.3	17.5	50	60	35
58½	6.5	25	.90	43	28	23.3	2.7	14	40	60	35
49½	5.5	25	.80	50	31	17.5	2	10.5	30	60	35

THE "SCOURED-CONTENT" DUTY.

The Fordney bill proposes to levy a 25-cent specific duty on the "scoured content" of grease wool, subject to the limit of 35 per cent ad valorem. We have shown that the inequalities under such a tariff would be so extreme as to be unbearable. But even if these variations did not make such a plan intolerable, it would have to be rejected because its administration is impossible. So far as we can discover no Government has ever attempted to levy a duty on wool on such a basis. No one having experience in the purchase, handling, or manufacture of wool has to our knowledge ever stated privately or publicly that it is possible to test the shrinkage of grease wool and determine its "scoured content" with the accuracy required in collecting duties. Error and unlimited opportunity for fraud would be the result, and the detection of errors and fraud would be impossible under any system that could be devised for administering a tariff based on the "scoured content" of wool.

Although no Government has ever based a wool tariff on the "scoured content" of greased wool, we fortunately have been able to obtain conclusive evidence as to the practicability of a "scoured-content" duty. During the war of 1914-1918 the French Government commandeered all of the wool in France, apportioning it to the mills to be used in the manufacture of goods for military purposes. A fixed price per kilogram of the "scoured content" was paid for the wool, which made it necessary for the Government to determine the "scoured content" of a very large quantity of grease wool in order to pay the amount

agreed upon to the owners of the wool and charge it to the mills using the wool. We have obtained for your information a statement of the experience of the French Government in connection with these transactions in wool. This statement, of which a translation is attached to this brief, was prepared by M. Robert Dantzer, who was in charge of the testing of textile materials for the French quartermaster general's department during the war. He is a man of long experience as a mill manager and professor in French textile schools, and is now in the French Service de la Reconstitution, being specially assigned to the branch having charge of the restoration of the devastated sections of the French textile industry. He is thus specially fitted by experience in textile manufacturing and by personal contact with the testing of grease wool to give us the exact information required in order to determine the practicability of the "scoured content" duty provided by the Fordney bill. We will submit this statement in the original French if you desire. We ask you to study carefully the complete report and will give here a summary of the conclusions from the experience of the French Government which Mons. Dantzer reports:

1. The estimates of the "scoured content" by experts can not be relied upon;
2. Laboratory tests of small samples are also unreliable; and
3. The only reliable test of the "scoured content" of grease wool, consisted in scouring, under careful inspection, at the mill where the wool was to be used, a large part of each lot of wool, at least 2,200 pounds, 1 bale in every 16 in the case cited by Mons. Dantzer.

The experience of France in this work corresponds with our own, and we wish to direct attention to what this means in the administration of the Fordney specific tariff on the "scoured content" of grease wool.

To begin with, it will be necessary to define the term "scoured content." Is it the absolutely dry wool fiber, free from grease, water, and foreign matter? If not, what percentage of the absolutely dry weight is to be allowed for moisture and fatty material? After these essentials have been fixed as a basis for the "scoured content," it will be necessary to scour and "condition" at least one sixteenth of every lot of wool imported into the United States in order to determine its official "scoured content" for tariff purposes. I ask that you examine that part of Mons. Dantzer's report in which he explains the laborious and complicated character of these tests, and then consider that if the "scoured content" duty on wool had been in force in 1919, the testing of one-sixteenth of the wool imported would have necessitated the selection, sorting, scouring, drying, and conditioning under Government supervision at the mills where the wool is consumed of 27,804,836 pounds of wool, consisting of a vast number of lots of different sizes. An alternative to this method is the establishment of official wool-scouring plants at the ports of entry for determining the "scoured content" of imported wool, regardless of whether unwashed, washed, or commercially scoured, as it would be necessary to bring all the wool to the same "scoured-content" basis.

No scheme of this kind has ever been established in any country at any time. It is only necessary to state what it necessitates in order to recognize its utter impracticability.

Suppose, however, that a "scoured-content" duty is actually made a law. Disregarding the insuperable difficulties of administration, the opportunities for fraud and the certainty of errors, what would a "scoured-content" duty mean when applied to the wool as it comes from the sheep's back? In order to obtain a fairly accurate answer to this question we have classified according to price the 1,200,000 pounds of Australian and New Zealand scoured wool sold at the last London wool auction before the war and applied to each value the 25 cent Fordney duty so far as it is applicable, the 33-cent duty without any ad valorem limit, which the representatives of the American wool growers have recommended at the hearings, and the 45-cent duty under the existing law:

Specific duties on "scoured content" applied to 6,359 bales (1,200,000 pounds) of scoured wool sold at London Mar. 12-17, 1914.

[Prices in cents per pound at \$4 per pound sterling.]

Bales.	Cents per pound.	Fordney.			Bales.	Cents per pound.	Fordney.		
		25 cents.	33 cents.	45 cents.			25 cents.	33 cents.	45 cents.
		<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>			<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
48.	48.3	51.8	68.3	93.2	233.	25.8	35	127.9	174.4
20.	45.8	54.5	72.3	98.1	25.	25	35	132	180
57.	45	55.5	73.3	99.9	208.	24.2	35	136.3	185.9
153.	44.2	56.5	74.6	101.2	259.	23.3	35	141.6	193.1
75.	43.3	57.7	76.2	103.8	195.	22.5	35	146.6	200
75.	42.5	58.8	77.6	105.8	229.	21.7	35	152	207.3
222.	41.7	59.9	79.1	107.9	275.	20.8	35	158.6	216.3
166.	40.8	35	80.8	110.2	192.	20	35	165	225
175.	40	35	82.5	112.5	138.	19.2	35	171.8	234.3
95.	39.2	35	84.1	114.7	181.	18.3	35	180.3	245.9
96.	38.3	35	86.1	117.4	72.	17.5	35	188.5	257.1
114.	37.5	35	88	120	51.	16.7	35	197.6	264
142.	36.7	35	89.9	122.6	5.	16.2	35	203.7	277.7
131.	35.8	35	92.1	125.6	6.	15.8	35	208.8	284.8
133.	35	35	94.2	128.5	5.	15.4	35	214.2	292.2
344.	34.2	35	96.4	131.5	14.	15	35	220	300
295.	33.3	35	99	135.1	6.	14.6	35	226	308.2
129.	32.5	35	101.5	138.4	13.	14.2	35	232.3	316.9
95.	31.7	35	104.1	141.9	17.	14.1	35	234	319.1
265.	30.8	35	107.1	146.1	1.	12.9	35	255.8	348.8
188.	30	35	110	150	5.	10.8	35	305.5	416.6
181.	29.2	35	113	154.1	1.	10.4	35	317.3	432.6
204.	28.3	35	116.6	159	3.	10	35	330	450
303.	27.5	35	120	163.6	1.	8.3	35	397.5	542.1
130.	26.7	35	123.5	168.5					

The wool valued at the highest price per scoured pound comes to the market in the greasy condition, and when the 1,200,000 pounds of scoured wool was sold at London on March 12-17, 1914, the highest price for grease wools was approximately 70 cents, on which the Fordney 25-cent duty would have been equal to 36 per cent ad valorem; the 33-cent duty 47 per cent; and the present 45-cent duty 64 per cent.

Summarizing the result of this application of the three rates to the "scoured-content" values of wool and excluding the small amount valued at less than 14 cents per pound, we have:

Specific rate:	Ad valorem equivalent.
25 cents (Fordney).....	36-60 per cent
25 cents, without ad valorem limit.....	36-178 per cent
33 cents (by wool growers).....	47-234 per cent
45 cents (present law).....	64-319 per cent

Duties varying from 36 to 178 per cent of the foreign value, from 47 to 234 per cent, or from 64 to 319 per cent, placed on a material like wool, which is essential, not only to the comfort and health but to the very existence of the people of this country, would be an outrage beyond the power of words to express.

Such a tariff on wool is impossible, not only because of the technical difficulties of administration already explained but because the American people would never submit to such a burden placed on the clothing they wear on their backs.

PROTECTION FOR THE WOOLGROWER.

A specific duty on wool being inadmissible, the woolgrowing industry in the United States can be protected by a tariff that will not work injustice only by basing the rate of duty on the standard by which the value of the wool for manufacturing purposes is measured, namely, the market value of the wool; in other words, by an ad valorem tariff. The price of a pound of wool is automatically determined by all of the factors, shrinkage and quality, on which its intrinsic value for manufacturing purposes depends. A thousand dollars' worth

¹ On wools above 42 cents.

of wool, no matter what its condition, whether unwashed, washed, or scoured, and regardless of the many characteristics that make up what is here called quality, represents at any given time the same intrinsic worth based on the capability of wool to supply the wants of the people. The dollar's worth of wool is the unit, not only by which the injustice of specific duties is judged but on which any fair rate of duty must necessarily be based. Only two objections to an ad valorem duty on wool have been advanced. One is that it would enable importers to defraud the Government by undervaluation. The other is that ad valorem duties decrease as values decline, and consequently give the least protection when protection is most needed.

THE QUESTION OF UNDERVALUATION.

First, as to undervaluation: Wool is a staple article of commerce whose value is well known to a large number of dealers and manufacturers. It can not be materially undervalued without gross neglect or criminal collusion on the part of the customs officers. Suppose, for example, that an ad valorem duty of 50 per cent is placed on wool, and that a lot of wool whose real value is \$100,000 and on which the rightful duty is \$50,000 passed through the customhouse at \$90,000, an undervaluation of 10 per cent, the duty actually collected being \$45,000. In this exceptional case the Government loses \$5,000 by a fraudulent act which could and should have been prevented by the vigilance of the customs authorities. Now let us turn to the "scoured-content" duty and assume, for the purpose of illustration, that such a duty is practicable (which it is not), that a specific duty of 25 cents per scoured pound is placed on wool, and that two lots of scoured wool are imported, each worth \$100,000, one lot consisting of 200,000 pounds of wool, valued at 50 cents a pound, and the other 100,000 pounds, valued at \$1 per pound.

The 25-cent "scoured content" duty on the first lot of wool amounts to \$50,000, equal to 50 per cent of the value of the wool, while the 25-cent "scoured-content" duty on the second lot amounts to only \$25,000, equal to only 25 per cent of the value of the wool.

Under the ad valorem duty of 50 per cent it is possible only by fraud or gross neglect on the part of the customs authorities for the duty to be reduced as much as \$5,000. Under the "scoured-content" duty of 25 cents a pound the tariff law itself legalizes a reduction of \$25,000 in the duty on the higher priced wool.

Foreign value.	Weight.	Foreign price per pound.	Specific duty, 25 cents per pound, scoured.	Per cent of value collected.	Ad valorem duty, 50 per cent.
	<i>Pounds.</i>				
\$100,000.....	200,000	\$0.50	\$50,000	50	\$50,000
\$100,000.....	100,000	1.00	25,000	25	50,000

The objection that an ad valorem duty fails to provide protection when values decline and protection is most needed is based on the erroneous assumption that an industry can be detached from the market influences that affect all other industries. Wool manufacturing and wool growing in the United States should be subject to the normal and unavoidable fluctuations of trade. When abnormal conditions exist, Congress can be relied upon to apply emergency remedies, as at present, when, following the greatest war in the history of mankind, commerce and industry are suffering from an abnormal depression of values by reason of the dislocation of supply and demand.

Both objections to an ad valorem tariff on wool, when examined, are thus found to be unsound.

Under the free wool Underwood tariff of 1913 all manufacturers of wool goods have been able to purchase raw material on the same terms, but the woolgrowing industry has been deprived of protection. Under an ad valorem tariff the manufacturers will still remain on equal terms and the woolgrower will receive adequate protection.

The duty on wool in the Fordney tariff, as that bill comes from the House of Representatives, is ad valorem on wool valued at not more than 71½ cents per

pound. Why? Not because of a long-considered and deliberate intention of its framers to make any part of the wool duty ad valorem, but because of the determination of the House of Representatives to make it fair. The long-considered and deliberate intention was to make the wool tariff specific, based either on the grease weight or the scoured weight, but when it came to the point of reaching a decision the impossibility of framing a fair tariff on wool on a specific basis forced the adoption of the ad valorem principle.

WOOL BY-PRODUCTS.

In addition to wool, the raw materials of the woolen and worsted industry consist of reclaimed wool and by-products of the wool-manufacturing process, the most important of the latter being noils and yarn or thread waste. We give here a list of 18 samples of by-products, with the prices at which they were offered for sale in Boston on August 2, 1921, and the Fordney specific duty with its ad valorem equivalent.

Name.	Price.		Ad valorem equivalent.	Name.	Price.		Ad valorem equivalent.
	Cents per pound.	Cents per pound.			Cents per pound.	Cents per pound.	
1c. $\frac{1}{2}$ noils.....	27	16	59	1f. Colored worsted garnetted.....	20	20	100
2c. $\frac{2}{3}$ noils.....	35	16	45	4f. Coarse garnetted.....	25	20	80
3c. $\frac{3}{4}$ noils.....	44	16	36	2f. Colored worsted garnetted.....	30	20	67
5c. Fine foreign noils.....	45	16	35 $\frac{1}{2}$	7c. $\frac{1}{2}$ garnetted worsted..	33	20	61
4c. Fine domestic.....	50	16	32	8c. $\frac{3}{4}$ garnetted worsted..	40	20	50
6c. Fine noil wool.....	52	16	31	9c. $\frac{1}{2}$ garnetted worsted..	48	20	41 $\frac{1}{2}$
13c. Worsted thread waste.....	16	14	87 $\frac{1}{2}$	10c. Fine garnetted worsted.....	56	20	36
11f. Colored worsted threads.....	16	14	87 $\frac{1}{2}$	3f. Fine garnetted worsted.....	60	20	33 $\frac{1}{2}$
18c. Colored worsted threads.....	17	14	82				
12f. White worsted thread.....	35	14	40				

This list includes six samples of noils which are the short fibers carrying shives and vegetable matter, removed from wool by combing during the worsted process. The Fordney bill places a duty of 16 cents on all of these noils which vary in value from 27 to 50 cents a pound, the result being a variation of the ad valorem equivalents of the Fordney duties from 31 per cent to 59 per cent.

Thread waste consists of a tangled mass of short pieces of spun yarn which must be first torn or garnetted into loose fibers before being again carded and spun into yarn. The four lots of this stock in our list vary in price from 16 cents to 35 cents a pound, and as a result the Fordney specific duty of 14 cents a pound varies from 40 per cent to 87 $\frac{1}{2}$ per cent ad valorem. In this list are eight lots of the same stock after it has been garnetted, the prices ranging from 20 cents to 56 cents a pound, with the ad valorem equivalents of the Fordney 20-cent specific rate varying from 36 to 100 per cent ad valorem.

These 18 lots of by-products supply another illustration of the inherent injustice of a specific duty on a product varying widely in value. Under the Fordney bill the duty on wool is made practically uniform at 35 per cent ad valorem, and under the same bill the specific duties on by-products from this wool varying from 31 to 100 per cent ad valorem, the highest ad valorem equivalent always being found on the lowest priced material. There can be no justification for such inequalities, by which the manufacturer who pays a duty of 35 per cent on wool, is able to sell the waste products from the same wool at prices advanced and sustained by a duty reaching as high as 100 per cent ad valorem. The duty on wool by-products should be ad valorem, and the rate the same as that placed on wool.

RECLAIMED WOOL.

Another important class of raw materials consists of reclaimed wool, on which the Fordney bill places specific duties, the inevitable result being the wide swinging ad valorem equivalents with the heavy burden always on the

low-priced materials. Below is a table showing the effect of the Fordney rates on a few grades of reclaimed wool as quoted in a recent market report:

Woolen rags.	Price 100 pounds.	Fordney.		Woolen rags. Reclaimed wool.	Price 100 pounds.	Fordney.	
		Duty 100 pounds.	Ad va- lorem equiva- lent.			Duty 100 pounds.	Ad va- lorem equiva- lent.
			<i>Per ct.</i>				<i>Per ct.</i>
Rough cloth.....	\$1. 50	\$6. 00	400	Black worsted clips.....	\$27. 00	\$6. 00	22
Mixed softs.....	4. 50	6. 00	133	Reclaimed wool.....			
Dark worsteds.....	5. 00	6. 00	120	Dark cloth.....	12. 00	14. 00	117
Blue serges.....	6. 50	6. 00	92	Light cloth.....	18. 00	14. 00	77
Black serges.....	8. 50	6. 00	71	Black serges.....	25. 00	14. 00	56
Grey underwear.....	15. 50	6. 00	39	Light hoods.....	30. 00	14. 00	47
Blue worsted clips.....	17. 00	6. 00	37	White softs.....	36. 00	14. 00	39
Black serge clips.....	21. 00	6. 00	29				

The only remedy for these inequalities is to place the same ad valorem duty on reclaimed wool as is placed on new wool and wool by-products.

TARIFF ON TOPS, YARN, AND CLOTH.

The rates on partly manufactured products, tops, yarns, and on the finished goods should accomplish two objects:

(1) Provide for a compensatory duty that shall be as nearly as possible equal to the duty on the raw material used in making the manufactured product, in order that so far as raw material is concerned, the American manufacturer may be on an equality with his foreign competitor, who uses wool free of duty.

(2) Protect the manufacture of wool goods in the United States against the lower cost of manufacturing abroad.

ACCURATE COMPENSATORY DUTY IMPOSSIBLE ON SPECIFIC BASIS.

A duty on wool makes it necessary to place a duty on manufactures of wool equal to the duty on the wool from which the goods are made, in order that the American wool manufacturer may be placed on an equality with his foreign competitor in the purchase of his raw material. To place a duty on wool without balancing it with an equal compensatory duty on goods would give the foreign manufacturer an advantage that would enable him to drive the American manufacturer out of business, at the same time depriving the American wool grower of protection by allowing foreign wool to be imported free of duty in the form of manufactured goods.

Wool and by-products vary so widely in condition and value, and partly and wholly finished wool goods differ so widely in construction, that it is impossible to adjust a compensatory duty on cloth so as to be even approximately equal to a specific duty on wool and by-products. This fact is so evident as hardly to need a demonstration. For years a compensatory duty to balance an 11-cent specific duty on wool was based on the theory that it required four pounds of wool to make a pound of cloth. This theory was in conflict with the multiplication table. No wool was imported of which more than approximately three pounds was used to make a pound of all new wool cloth, while two pounds of a large part of the imported wool made a pound of new wool cloth. Furthermore, as the compensatory duty was applied to goods made in part of wool, instead of using four pounds or even two pounds to make a pound of cloth, only a small fraction of a pound of wool was required to make a pound of many of the fabrics composed largely of cotton.

If the Committee on Finance desires proof of the impossibility of adjusting a compensatory duty to balance a specific duty on grease wool, any wool manufacturers can easily supply it by a statement of the number of pounds of grease wool required to make 1,000 pounds of each of the various fabrics in process of manufacture in his mill.

The following tabulation taken from manufacturing records, which could be extended indefinitely, shows the number of pounds of grease wool required for 1,000 pounds of each of five wool fabrics. The first fabric, on which the

compensatory and wool duties are equal, was made of heavy-shrinking wool. Of the other four fabrics, on which the compensatory duty is in excess of the wool duty, two were made of light-shrinking wools and two of mixtures of wool and cotton.

Cloth weighing 1,000 pounds.	Compensatory 44 cents per pound.	Grease wool consumed.	Wool duty 11 cents per pound.
Woolen cassimere.....	\$440	<i>Pounds.</i> 3,956	\$435.16
E. 11 cents worsted serge.....	440	2,311	254.21
A25 worsted serge.....	440	1,908	209.88
A96 cotton warp dress goods.....	440	1,079	118.69
A22 cotton worsted.....	440	357	39.27

An illustration of the failure of a compensatory duty to balance a specific duty on grease wool is supplied by the Fordney compensatory duties. The theory on which the Fordney compound duties on cloth are based is that the specific rates are the compensatory duty, while the ad valorem rates provide the protection for the manufacturer. The compensatory specifics begin with 20 cents on cloth valued at not more than 75 cents and are raised by three steps to 36 cents on cloth valued at more than \$2.50 per pound. These steps are an expedient for giving a specific duty the merit of the ad valorem system, the specific tariff rate being increased at intervals as the value rises. Assuming for the purpose of illustration that the cost of wool cloth on a free-wool basis is made up of 50 per cent for wool and 50 per cent for conversion, and that the Fordney wool duty of 35 per cent ad valorem on American valuation (60 per cent on the foreign value) of the wool, the Fordney compensatory duties on cloths and on the wool in the cloths show the following comparison in cents per pound of cloth:

Comparison of Fordney compensatory duties on cloth with the compensatory duties required on foreign cloth.

Value of cloth.	Duty on wool in the cloth.	Fordney compensatory.	Value of cloth.	Duty on wool in the cloth.	Fordney compensatory.	Value of cloth.	Duty on wool in the cloth.	Fordney compensatory.
30.....	9	20	90.....	27	25	160.....	36	36
40.....	12	20	100.....	30	25	170.....	36	36
50.....	15	20	110.....	33	25	180.....	36	36
60.....	18	20	120.....	36	25	190.....	36	36
70.....	21	20	130.....	36	30	200.....	36	36
75.....	22.5	20	140.....	36	30			
80.....	24	25	150.....	36	30			

Notwithstanding the three steps from 20 to 36 cents per pound, the Fordney compensatory duty varies from 122 per cent in excess of the amount required to 17 per cent less than is required.

COMPENSATORY DUTIES ON "SCOURED-CONTENT" BASIS.

If a specific duty on the "scoured content" of wool were practicable, a specific compensatory duty on cloth to balance it could be adjusted with a fair degree of accuracy. The only variable factor would be the shrinkage in converting scoured wool into partly or wholly manufactured goods. This would involve certain variations between the wool duty and the compensatory duty, but they would be comparatively slight, as they are in adjusting a specific compensatory duty on cotton goods to a specific duty on raw cotton.

A "scoured content" duty on wool, however, is not only impracticable, but is intolerable, because of the extreme variation in the ad valorem equivalents on different kinds of wool. For these reasons a compensatory duty to balance a "scoured-content" wool duty calls for no consideration.

AD VALOREM DUTY THE ONLY ACCURATE BASIS FOR A COMPENSATORY DUTY.

Specific duties on wool, whether on the grease weight or "soured content," being out of the question, there remains the question of adjusting a compensatory duty to balance an ad valorem duty on wool. This adjustment can be made with a high degree of precision, the only variable factor being the relative proportion between the cost of raw material and the cost of conversion in the value of the manufactured goods.

If this proportion were constant the adjustment of the compensatory duty could be made with absolute precision. If, for example, the value of the foreign goods consisted of 50 per cent for wool and 50 per cent for conversion, an ad valorem duty of 60 per cent on wool, as provided by the Fordney bill, would be balanced exactly by (0.60×0.50) 30 per cent ad valorem on cloth. The raw material cost, however, varies to a certain extent with the construction of different fabrics. If the cost of a cloth consists of 60 per cent for wool and 40 per cent for conversion, an ad valorem duty of 60 per cent on wool would be equal to an ad valorem compensatory duty of (0.60×0.60) 36 per cent on goods, so that a 30 per cent ad valorem compensatory duty which would balance the wool duty exactly in the first case would be 6 per cent below the required compensatory in the second case.

Even this variation is very slight when compared with the wide variations that are unavoidable with specific duties. But in practice the actual variation of the ad valorem compensatory is reduced to a negligible amount by the fact that a protective rate is also placed on cloth to balance the increase in the American conversion cost above the foreign cost of conversion. As a result the variation of an ad valorem compensatory duty from the required amount is determined, not by the variation in the relative proportion of cost of wool in the cost of goods, but by a small fraction of the difference between the ad valorem rate on wool and the percentage of increase in the American conversion cost above the foreign conversion cost, this fraction being the difference between the assumed proportion of the cost of wool in the goods and the actual cost. To make this clearer we will assume that the ad valorem compensatory duty is based on a 60 per cent duty on wool, the assumed cost proportions of 50 per cent for wool and 50 per cent for conversion, and on an American conversion cost 100 per cent higher than the foreign conversion cost. We will also assume that we have three fabrics, with the relative cost of wool and conversion as follows: (1) 50 per cent wool, 50 per cent conversion. (2) 60 per cent wool, 40 per cent conversion. (3) 40 per cent wool, 60 per cent conversion. The rates required on these three cloths would be as follows:

	Compensatory.	Protective.	Total rate on cloth.
No. 1.....	(0.50×0.60) 30 per cent.....	(0.50×1.00) 50 per cent.....	<i>Per cent.</i>
No. 2.....	(0.60×0.60) 36 per cent.....	(0.40×1.00) 40 per cent.....	80
No. 3.....	(0.40×0.60) 24 per cent.....	(0.60×1.00) 60 per cent.....	76
			84

This comparison shows that while the compensatory rate required varies 16 per cent from 30 to 24 per cent and the protective rate required varies 10 per cent from 50 to 60 per cent, these variations partially offset each other, so that the resulting variation in the total ad valorem rates required on the three cloths is only 8 per cent, the extremes, 76 per cent and 84 per cent, varying only 4 per cent from the rate based on the 50-50 proportions of the cost of No. 1 fabric on which the compensatory and protective duties are based. This variation of 4 per cent for all practical purposes is negligible. As the three fabrics represent approximately the extreme variations encountered in practice, the above comparison proves conclusively that ad valorem duties on wool and cloth enable both compensatory and protective rates to be adjusted with a very high degree of precision to the rates actually required on all wool fabrics of different constructions.

COMPENSATORY DUTIES ON MIXED GOODS.

There remains the problem of adjusting the compensatory duty on fabrics composed of mixtures of wool and of other fibers. The concealed protection that

necessarily results from treating these mixed fabrics as all wool is not only objectionable in itself, but has done much to bring the cause of protection into disrepute. We suggest that, in order to overcome this difficulty, the compensatory rate on goods be adjusted to the proportion of wool found in each imported fabric. As it is impossible to determine for tariff purposes the value of the wool in a fabric, we suggest that the adjustment be based on the proportion of wool by weight in the goods.

If this plan is adopted the reduction of the ad valorem compensatory rate on mixed goods should be so graduated as to take into account the reduction in the value of mixed goods, due to the lower cost of the fibers mixed with wool.

PROTECTIVE DUTIES ON WOOL GOODS.

The inherent defects of a specific duty, extreme fluctuation in the ad valorem equivalents with the heaviest burden always on the lowest priced materials, are as serious in the case of wool manufactures as when applied to wool. The Fordney bill attempts to mitigate these defects in three ways: By combining an ad valorem rate with the specific, by increasing the specific rate at certain points as the value increases, and by increasing the ad valorem rates at the same points. In spite of these makeshifts, the Fordney rates on cloth still show great irregularities; low-priced goods bearing the heaviest duties, while the lower duties on the medium and high priced goods fall short of providing the necessary protection for the American industry. Furthermore, the sudden increases in the rates are most objectionable. For example, cloth, valued in the United States at \$1.25 per pound, pays a duty of 25 cents a pound and 21 per cent ad valorem, equal to 41 per cent ad valorem. If valued at \$1.26 per pound or 1 cent a pound more, it pays a duty of 30 cents a pound and 24 per cent ad valorem equal to 48 per cent ad valorem.

ADJUSTING THE PROTECTIVE DUTY.

An ad valorem duty is the only permissible form for the protective rate on goods and it can be adjusted in the way already explained for the adjustment of the compensatory duty. The illustration then used shows also the adjustment of the ad valorem protective rate, so that no additional explanation is required.

This arrangement of ad valorem duties, which has been explained for wool and cloth, is applicable as well to tops and yarn, the principles being the same, and the only modification being that due to the greater proportion of the cost of tops or yarn represented by the cost of the wool.

Protective duties on partly and wholly manufactured wool goods should be in proportion to the American conversion cost. As the process of manufacture advances, the products should be protected by duties that increase progressively with the increase in the cost of manufacturing the different products, tops, roving, yarn, and finished goods. In this way protection will be provided, while discrimination and special privilege will be avoided between the different sections of wool manufacturing, of which the finished product of one constitutes the raw material of another. This principle of protective tariff adjustment is based on the reasonable assumption that the foreign conversion costs at the successive stages of manufacturing bear a constant ratio to the corresponding American conversion costs.

NECESSARY INFORMATION AS TO COSTS.

To apply this principle of tariff adjustment it is necessary to have the facts regarding domestic costs of production at the different stages of the woolen and worsted industry. In securing this information the Government should respect the right of the individual manufacturer to refuse consent to the publication of statements of mill costs, which are rightly the most jealously guarded information relating to manufacturing operations. The facts must come from every branch of the industry, carded woolen and worsted, with the subdivisions, tops, yarn, and fabric manufacture. They must also come from mills comprising a large enough proportion of each industrial branch to make the information representative of the entire industry. Your committee can easily obtain this information by requiring every wool manufacturer to reply to a questionnaire that calls only for the essentials, no part of the data being made public in such a form as to enable it to be connected with any mill.

This plan does not contemplate any investigation of foreign costs or any attempt to determine the difference between production cost in this country and abroad. Its only object is to obtain in a simplified form authentic information

regarding the raw material and conversion costs of partly and wholly manufactured wool goods. This may appear to you to be too great a task to be completed in time for the pending revision. If nonessentials are eliminated by framing the questionnaire so that each manufacturer will know exactly what you require, we believe that the inquiry will save time instead of delaying the work of making the protective tariff what it should be.

THE AD VALOREM RATE ON WOOL.

The Carded Woolen Manufacturers Association has no recommendation to make as to the particular rate of duty to be placed on wool. Any ad valorem duty on wool that is satisfactory to the woolgrowers, to Congress, and to the American people will be satisfactory to us. We have explained the method of adjusting both compensatory and protective duties on an ad valorem basis with a high degree of precision. We have urged that the compensatory duty on mixed goods be reduced to conform to the amount required. We have used our best judgment in suggesting a protective rate on cloth that would mark the line of safety in these extraordinary times without proving excessive. It remains for Congress to decide upon the ad valorem protective duty on wool and adjust the compensatory rate to conform to it in order to complete a system of duties on wool and wool goods which will be adequately protective and fair to all producers and consumers.

While we are not making any recommendation as to the particular rate to be placed on wool, we suggest that 50 per cent ad valorem, foreign valuation, would provide adequate protection to the woolgrowing industry without imposing any serious burden on the consumers or the manufacturing industry.

FIXING THE RATES ON GOODS.

The rates on wool and wool goods that have been mentioned have been used to illustrate methods and principles. We come now to the question of what rate of duty should be placed on wool goods. The compensatory rate required is more easily determined than is the rate required for protecting the American manufacturer who converts the raw material into goods. The increase in the cost of imported wool is indicated exactly by the ad valorem rate on wool. The particular rate required for protection, on the other hand, depends on a number of widely fluctuating factors, some of which it is impossible to determine at any given time. Among these are normally the lower cost of labor, mill construction, and all the items that make up the foreign conversion cost. Added to this is the dumping of foreign goods at cut prices on the American market, which is common even under what may be called normal conditions. At the present time there are added to the above influences a number of extraordinary factors resulting from the World War, all combining to threaten every branch of the American industry, woolgrowing as well as wool manufacturing, with a foreign competition that has never before been approached in intensity.

The wool-manufacturing countries of Europe are in an impoverished condition; some of them believed to be bankrupt. They owe the United States approximately \$16,000,000,000, on which the annual interest charge is, say, \$800,000,000, and are also under the necessity of making huge purchases of raw materials and foodstuffs. Although unable to pay their debts in cash they possess manufacturing industries of immense capacity, particularly in the production of textiles. These manufactured products provide the only means by which European countries can purchase needed raw materials, pay the interest on the debts, and reduce the principal due the United States. They must pay in goods or not at all. Thus it is as certain as anything in trade can be that for an indefinite period the woolen and worsted mills of the United States will be exposed to foreign competition on a scale never before experienced by any country in the history of the world.

These are the extraordinary conditions which determine the foreign competition against which the tariff that is now being framed must protect the American woolen and worsted industry, if that industry is not to be ruined. We reject as unworthy of serious consideration the proposal urged by the international banking interests that Europe's huge debt to the United States should be paid by the exportation of European goods to this country. The physical, moral, and intellectual well-being of a people depends upon their being steadily employed in occupations suited to their varied talents. Let them be thrown into idleness, even though foreign countries are shipping manufactured goods in vast quantities in payment of war and bankers' debts, and widespread ruin, with danger of the subversion of the Government, will be the result. These

are the reasons why we reject the plan to allow Europe to pay her debts to us with manufactured goods. Far better for the United States that the European debt should be canceled, than that our industrial fabric should be ruined. The protection of the American manufacturing industry is the first essential, and we ask you to place a protective duty on wool goods by which that object will be attained.

Taking into consideration the normal necessity for protection and the extraordinary conditions of which the depreciation of foreign exchange is the visible sign, we ask that, in addition to the compensatory duty on goods required to balance the duty on wool, a protective rate of 50 per cent of the foreign value, or its equivalent, be placed on wool cloths. This rate is based on a foreign conversion cost equal to 50 per cent of the total cost of the cloth and also equal to one-half of the conversion cost in American mills. In view of the abnormal industrial conditions throughout the world and the foreign competition experienced by American wool manufacturers under the Wilson bill with 40 per cent and 50 per cent ad valorem on wool cloths, we believe that this protective rate of 50 per cent ad valorem based on the foreign value is the minimum of safety, and that any reduction below that rate will result in foreign competition ruinous to the American industry.

Starting with our suggested rate of 50 per cent ad valorem, foreign valuation on wool, with a cost basis of 50 per cent for wool and 50 per cent for conversion, the duty on cloth, including both the compensatory and protective rates, is 75 per cent ad valorem.

On the cost basis of 70 per cent for wool and 30 per cent for conversion, the duty on yarn, including both the compensatory and protective rates, calculated as already explained, is 65 per cent.

Thus starting with 50 per cent ad valorem on wool, the ad valorem rate on yarn is 65 per cent, and that on cloth 75 per cent.

AN APPEAL FOR JUSTICE.

In the framing of any tariff the first consideration is that it shall be fair to all producers and consumers. This principle of justice to all under the law should be not only the foundation but the framework and the capstone of every structure. This may sound like a platitude, but the principle of fair play has suffered such rude violation in former tariffs on wool and wool goods that it is well to recall its importance when framing the wool schedule in 1921.

It is unnecessary to dwell upon the importance of wool manufacturing in providing clothing for the people, but in this connection it should not be forgotten that wool goods, and consequently wool, are essentials in the defense of the Nation in time of war. Only three years ago the United States was at war, and the shortage of the domestic supply of wool, combined with the interruption of ocean transportation, threatened to impair the power of our armies and navies to such an extent as to result in defeat and national humiliation. This experience and the importance of the wool industry in time of peace bring home to everyone the realization of the vital necessity of possessing a self-contained industry in the United States for producing wool and wool goods. To accomplish this result the protective measures adopted must extend to every part of the industry from the growing of wool to the manufacture of garments ready for the wearer.

We look to you, the representatives of all the people, to see that this result—an adequately protective tariff based on justice to all—shall be accomplished without unnecessary delay. A failure to enact such a tariff now will be a calamity, not only because of the effect of such inequalities as may be incorporated in the new tariff but to a far greater extent through the disturbance and resulting uncertainty that will accompany the agitation to obtain justice under the law, for such a question as this is never settled until it is settled right.

CARDED WOOLEN MANUFACTURERS ASSOCIATION,
EDWARD MOIR, *President*.

MILLARD D. BROWN, *Vice President*.

W. A. DICKEY, *Treasurer*.

JOSEPH W. RANDALL, *Secretary*.

W. C. HUNNEMAN,

ARTHUR WHELOCK,

WILLIAM PARK,

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FRANK A. APPELT, *Directors*.

THE EXPERIENCE OF FRANCE IN TESTING WOOL FOR SHRINKAGE DURING THE WAR.

[By M. Robert Dantzer, superintendent of the woolen mills of E. Ricalens Fils, Larroque-d'Olmes, Ariège, France, who was in charge of the testing of wool and wool goods for the French Government during the World War.]

Larroque d'Olmes, Ariège, France, July 14, 1921.

Wool is found in commerce in four conditions: (1) Grease wool, as it is sheared from the sheep; (2) washed wool, from sheep that have been washed in running streams several days before shearing (under this head are also included the pulled wools that have been treated by the Mazamet process); (3) partially scoured wools, washed in warm water, a frequent practice in Australia, and which have been freed from a large part of the soluble materials attached to the grease wool; and (4) fully scoured wools, from which all impurities have been removed and which are ready for putting through the machinery that converts them into yarn and cloth. The commercial value of grease wool in the three first-named conditions depends upon its "yield" of fully scoured wool.

WOOL IN THE GREASE.

The yield of wool expressed in percentage indicates the weight of fully scoured wool obtained from 100 kilograms of wool either in the grease, washed, or partially scoured. For example, 100 kilos of wool in the grease with a yield of 42 per cent will yield 42 kilos of fully scoured fiber.

Estimating the yield of a lot of wool is above all a question of practice. The expert called upon to estimate the yield of wool bases his judgment on the previous results obtained with wool of the same origin, the accuracy of his estimate depending upon his experience. This method is, of course, very expeditious, but lacking in accuracy, being marked by frequent errors. There are great variations between the yield of a lot of wool as estimated by the experts and the actual yield by scouring. In France during the war of 1914-1918 the quartermaster's department requisitioned all the wool held by the growers in the country. The price paid for the wools was 5 francs per kilo of fully scoured wool. For example, grease wool with a yield of 38 per cent was purchased by the Government for (5×.38) 1.90 francs per kilo of grease wool, and it was then delivered on the same basis to the manufacturer of the cloth. It often happened that the expert buying wool for the quartermaster's department underestimated the yield, the manufacturer being the only one to benefit from this error. As a result of this abuse, the quartermaster's department decided, not to deliver the grease wool to the manufacturers until it had been tested to determine the actual yield, this becoming the established rule.

Scouring test.—The method of making the test consisted in scouring thoroughly a definite part of each lot. This method necessitated a constant inspection of the testing operations by all those interested in it, and was carried on with a quantity of wool large enough to represent fairly well the average condition of the entire lot.

An example will help to explain this method of testing. There was shipped to a manufacturer of wool cloth 27,035 kilos of wool in the grease. This wool was obtained by requisition in the department of the Drome and was made up of six small lots, as follows:

Lot No.	Bales.	Estimated yield.	Grease weight.	Scoured weight.	Lot No.	Bales.	Estimated yield.	Grease weight.	Scoured weight.
		<i>Per ct.</i>	<i>Kilos.</i>	<i>Kilos.</i>			<i>Per ct.</i>	<i>Kilos.</i>	<i>Kilos.</i>
1.....	24	39.5	2,895.3	1,143.64	5.....	48	43.5	5,827.5	2,534.79
2.....	30	43.5	3,534.7	1,537.59	6.....	85	42.0	10,156.4	4,265.52
3.....	32	43.5	3,704.5	1,611.46					
4.....	7	40.5	917.5	371.38	Total...	226	42.36	27,035.0	11,464.38

Based on the estimate made by the experts when the grease wool was purchased from the woolgrowers, the 27,035 kilos was invoiced on the basis of 11,464.38 kilos of scoured wool, equal to a yield of (11,464.38÷27,035) 42.36 per cent. The scouring test was made to verify the accuracy of this estimate yield of 42.36 per cent and was carried out with 14 bales of grease wool as follows:

	Bales.		Bales.
Lot No. 1.....	2	Lot No. 5.....	3
Lot No. 2.....	2	Lot No. 6.....	4
Lot No. 3.....	2		—
Lot No. 4.....	11	Total	14

Equals 1,723 kilos, gross weight.

When these 14 bales were opened and mixed, the tare was found to be 44.8 kilos, leaving a net weight of 1,678.2 kilos of grease wool, this being the weight determined on the day of purchase and consequently the amount that had been paid for. When the bales were opened the actual weight of the wool was found to be only 1,640 kilos, representing a loss of 38.2 kilos.

Such variations in the weight of grease wool are frequent and account for the tolerance of 3 per cent which has been established.

As the estimates by the experts were based on the weight of the wool when purchased, it was necessary to base the scouring test on the original weight of 1,678.2 kilos in the grease. After desuinting, scouring and drying the 14 bales of wool the weight of the scoured wool was found to be 613.4 kilos, which by decreaseage and conditioning became 629.47 kilos, which made the yield of the wool as determined by the test ($629.47 \div 1,678.2$) 37.5 per cent.

This result was confirmed later when the figures for the yield of the total weight of 27,035 kilos were obtained.

Many scouring tests which have been made have shown that the yield indicated by the tests does not vary more than one-half per cent from the actual yield of the entire lot. A scouring test of this kind is far superior to the judgment of experts. The error of the experts in the case cited was ($42.36 - 37.5$) 4.86 per cent. Scouring tests of a carefully selected part of a shipment of wool is a guaranty of accuracy to the buyer and seller, but unfortunately involves a certain expense.

TESTS IN THE LABORATORY.

By reason of the marked differences in the condition of different parts of a lot of grease wool due to the variable quantity of moisture and greasy and earthy materials present, it is absolutely impossible to affirm that a test of a small sample of the wool can indicate the exact yield obtained from the whole lot. The question of the yield of a lot of grease wool is very complex and in order to obtain fairly exact results it is necessary to repeat the tests many times and to draw a considerable number of samples that must be selected with great care in order that they may represent the average condition of the lot. In practice it is a peculiarly complicated task to secure these required conditions, a lot of grease wool generally being far from uniform in condition.

Furthermore, the official conditioning houses in France refuse absolutely to make tests of this kind, contenting themselves with giving the results obtained by a test of the samples of grease wool that were submitted to them, but which the officials of the conditioning houses did not themselves draw from the lot of wool. Thus it will be seen the conditioning houses guarantee the yield of only the small quantity of the lot which was submitted to them, the interested parties—the buyer and seller—having full liberty to calculate the yield of the total quantity of wool. The operation carried on by the conditioning houses is as follows:

1. Weighing the sample submitted for the test.
2. Sorting the wool: (A) Wool in the grease. (B) Rejections, kempy, frihs, etc. (C) Various foreign materials falling from the wool—sand, straw, etc. These three classes of products are weighed separately.

Decreaseage and conditioning.—From the sorts (A) and (B) one or several samples are drawn and subjected to decreaseage and conditioning by the usual methods.

Average yield.—The partial results are combined and the calculation applied to the entire lot of wool.

Application.—Take for illustration, a lot tested at the conditioning house at Mazamet.

Net weight of sample as received, 60.585 kilos.

SORTING AND WEIGHING.		Kilos.
(A) Body sort.....	-----	46. 250
(B) Rejections.....	-----	13. 300
(C) Impurifies.....	-----	0. 875
Total.....	-----	60. 425
Invisible loss.....	-----	0. 160
Original weight.....	-----	60. 585

Two 1,000-gram samples are drawn, one from each of the two sorts (A) and (B), and after decreaseage and conditioning show the following results:

		Grams.
(A) Pure wool.....	-----	410. 50
Water.....	-----	155. 90
Fatty and foreign matter.....	-----	433. 60
Total.....	-----	1, 000. 00
(B) Rejections, pure wool.....	-----	282. 50
Water.....	-----	166. 70
Fatty and foreign matter.....	-----	550. 5
Total.....	-----	1, 000. 00

From these results it is easy to calculate the partial yields:

		Per cent.
(A) Wool absolutely dry.....	-----	41. 05
Wool conditioned at 17 per cent.....	-----	48. 029

This represents the following yield for the body sort of the sample:
 $46.250 \times 0.48029 = 22.213$ kilos.

		Per cent.
(B) Rejections, wool absolutely dry.....	-----	28. 28
Wool conditioned at 17 per cent.....	-----	33. 088

This represents the following yield for the rejections of the sample:
 $13.300 \times 0.33088 = 4.401$ kilos.

AVERAGE YIELD.

(A) 46. 250 kilos.....	22. 213 kilos conditioned at 17 per cent.
(B) 13. 300 kilos.....	4. 401 kilos conditioned at 17 per cent.
59. 55 kilos yields.....	26. 614 kilos conditioned at 17 per cent.

Consequently the average yield of the sample is $(26.614 \div 60.585) 43.93$ per cent.

It is well to note that the certificate issued by the conditioning house at Mazamet refers only to the constituents of the sample submitted and is not applicable to the entire lot of wool from which the sample was drawn. These restrictions are entirely justified because the composition of a lot of grease wool is often very heterogeneous and the sample drawn can not be accepted as representing it. The large quantities of foreign materials sometimes found in the bales of grease wool have a material effect on the yield of the entire lot.

In this connection I will give the results obtained from a lot of grease wool from the department Isere, France, on which the experts had stated the yield to be 35 per cent:

		Kilos.
Grease wool, net weight.....	-----	21, 838. 11
Stones, sand, vegetable matter, etc., removed by sorting.....	-----	24. 5
Rejections.....	-----	229. 05
Skin, kemp, etc.....	-----	15. 20
Total.....	-----	268. 75

The foreign matter is equal to 1.32 per cent of the net weight.

After scouring, decreaseage, and conditioning the yield was 9,451 kilos of scoured wool, an actual yield of 43.69 per cent. As will be noted, this yield is 8.69 per cent greater than that stated by the experts.

The conditioning house at Vienne also made tests to determine the yield of samples of grease wool. Four samples, of 500 grams each, were drawn from one lot of grease wool of the same origin as the preceding lot, the experts estimating the yield to be 42.625 per cent. The determination of the humidity of the grease wool being impossible, the examiner proceeded immediately with the decrease of the samples, reducing them to an absolutely dry weight. The four samples, of 500 grams each, yielded 238, 240, 243.5 and 247.5 grams, respectively, a total of 969.4 grams. This weight was reduced to a conditioned weight on the 17 per cent basis: $969.4 \times 1.17 = 1,134.198$ kilos. This shows an average yield from the samples of $1,134.198 \div 2,000 = 56.709$ per cent.

When the entire lot was scoured it showed an actual yield of 48.6 per cent, which was 8.109 per cent less than that determined by the laboratory tests, and 5.975 per cent greater than the yield, 42.625 per cent, estimated by the experts.

Furthermore, the tests which have been made on the laboratory basis, have invariably shown a yield greater than that actually obtained from the entire lot. It appears that in spite of all the precautions that may be taken, there is always a tendency when drawing the samples to select wool that is cleaner and lighter shrinking than the average of the lot. For these reasons this laboratory method of testing has not been adopted in practice. Up to the present time the great difficulty in drawing samples that will represent the average condition of an entire lot of wool presents a problem that has not yet been solved.

The only conclusion to be drawn from what has been said is that only a test of at least 1,000 kilograms of grease wool, on an industrial scale, will give a sufficiently close approximation of the value of a lot of grease wool so far as its yield is concerned. As for the estimates made by the experts, they are generally erroneous and always subject to caution.

WASHED WOOL.

Wools washed on the back of the sheep have been freed from the greater part of the impurities and soluble materials by rinsing the animals in running water. This operation takes place a few days before the shearing and imparts greater uniformity of condition to the wool. Washed wools are sold on a basis of the yield as fixed by experts and which is always subject to error. I will give particulars regarding a lot of wool washed on the sheep's back which came from the Jura region and on which the experts fixed a yield of 74.72 per cent. This wool was found to be made up as follows:

	Per cent.
Pure wool, absolutely dry-----	77.725
Fatty and foreign materials-----	7.2
Water-----	15.075
Total-----	100.00

When conditioned on a basis of 17 per cent yield of the lot was: $77.725 \times 1.17 = 90.938$ per cent.

The underestimating of the yield by the experts was $(90.938 - 74.72) = 16.218$ per cent.

By reason of the greater uniformity in the condition of wool washed on the back of the sheep the operations of decrease and conditioning, when carried on with samples of 100 to 500 grams, give a fair approximation of the actual yield of the entire lot. This is also true of wools pulled from sheepskins, as is done at Mazamet. On the other hand, pulled wools removed from the skins by chemicals are of an inferior value and are called "pelades." These low-quality wools carry about 20 per cent of lime.

SCOURED WOOLS.

Wools scoured in warm water are fairly free from grease and impurities and can be used in the carded woolen industry without further scouring. They are bought and sold on the basis of a yield fixed by experts whose estimates frequently vary from the actual yield obtained from the entire lot. This is shown

by the following comparison of estimates and actual results in percentages obtained from three lots of scoured Australian wool:

	Lot 1.	Lot 2.	Lot 3.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Yield given by experts.....	94.5	93.5	89.5
Pure wool, absolutely dry.....	81.132	83.232	78.393
Fatty and foreign material.....	5.170	1.802	7.900
Water.....	13.698	14.966	13.707
Total.....	100	100	100
Yield conditioned 17 per cent and $\frac{1}{2}$ per cent.....	96.349	98.813	93.090

In every case the yield given by the experts is less than the actual yield.

CONCLUSIONS.

From what has preceded we can reach the following conclusions:

1. *Grease wools.*—The laboratory tests when with small samples always show a yield greater than the actual yield.

When making scouring tests of a certain number of bales on an industrial scale the result is within one-half of 1 per cent in the majority of cases.

2. *Washed and scoured wools.*—The tests of small samples drawn carefully from the bulk of the lot gives a result close to the natural yield.

In all cases the tests should be completed by conditioning the wool by the usual methods.

In all cases the yield indicated by experts is erroneous.

3. *Remarks.*—In many sales of scoured wool the following clause is inserted in the contract:

“Scoured wool conditional on a basis of 17 per cent with the regular tolerance of 1.5 per cent for fatty materials.”

This means that 100 parts of pure wool absolutely dry is invoiced at $(100 \times 1.17 \times 1.015) 118.755$ parts.

As will be easily understood, this clause in the contract makes the 1.5 per cent of fatty material subject to the 17 per cent regain as if it were wool fiber. In all the purchases of army goods by the French quartermaster department this tolerance of 1.5 per cent is required, the plain effect being to make the regain 18.755 per cent instead of 17 per cent.

Senator McCUMBER. Mr. Dale, the committee have been so well impressed with the manner in which you have presented this subject that they have been inclined to give you all the time that you wished, and we think we have been justified in extending that time. But there is one subject on which I would like your judgment, and that is on the subject of the American valuation. You spoke, if I may say so, rather disparagingly of the proposition, or at least with the preference for the old proposition.

Here is one feature of the case, and the only feature that has impressed me with the importance of the American valuation. We tried to maintain in the country the highest standard of wages and of living, but by the adoption of the foreign valuation as the basis of our tariff we pay a premium for the lowest class of labor and the lowest standard of living.

Let me illustrate. The article costs 50 cents in Japan to produce. It costs a dollar to produce, I will say, substantially or practically the same article, in France. We levy a duty of 20 per cent. The Japanese producer, therefore, has introduced that article into the United States on the payment of 10 cents only, while the French producer, because he has a higher standard of living in his country and pays better wages, is penalized by compelling him to pay 20 cents for

bringing the same article in; and if we go to Great Britain it might be 30 cents for introducing the same article in the United States. For that reason we have adopted, wherever it has been possible, a specific duty in preference to an ad valorem duty. Now, wherein is there anything weak in the argument in behalf of the American valuation system; that is, if we do not use the American valuation for the mere purpose of obtaining an excessive tariff duty, but use it for the purpose of equalizing the duties so that the duty on the same article will be practically the same, no matter from whence it is brought into the United States.

Mr. DALE. Well, as I stated before, I would prefer to wait until the Government decides what the American valuation is, but I can appreciate the force of what you have said in regard to the imports from different countries with different standards of living, different standards of costs. In reaching a conclusion on this question of valuation you may find it necessary to take that into consideration. I do not think, however, that the question should be decided solely on that consideration.

There may be other things to offset the advantage that you speak of. In framing a tariff bill I think it would be well for you to realize, as you probably do, that perfection will never be attained. There are too many variable factors in the problem. As for the American valuation plan, I do not want my remarks to be construed as reflecting adversely on it. I want to hold myself neutral on this problem until I know more about it and I believe the people whom I represent occupy the same position.

Senator McCUMBER. Is not the present system manifestly so unjust as between the different countries that are producing and exporting to the United States that we ought to be able to meet that in some way if we possibly can?

Mr. DALE. So far as the tariff on wool and wool goods is concerned, I should say no.

Senator McCUMBER. I admit possibly there would be less occasion for it there.

Mr. DALE. But when it comes to the broad question of the tariff on everything that is going to be made dutiable, that is something, perhaps, that I am not competent to pass upon. So, Senator, without speaking for or against this American valuation system, I want to hold the whole matter in suspense until we get such light as, possibly, you will get through this investigation and which you may not get by this investigation.

Senator SMOOT. There is one question that I would like to ask you. I think that I can thoroughly agree with your statements here based upon the premise you have laid down; that is, the cost of material being 50 per cent and the cost of conversion being 50 per cent. The fault in that, however, would be this: We would then be a manufacturing country whose cloth is made on a basis of 50 per cent wool and 50 per cent conversion. It would cut us out of all the finer class of goods where the conversion cost is 70 per cent and the wool cost 30 per cent, or else we would have to have a different rate of duty in order to take care of that class of goods. If we want to be a 50-50 country, if I may allude to it in that way, I rather think with ad valorem rates applied it would work out that way. You

must remember that we have to take care of the coarser goods, and that will require a greater amount of wool. When you get into the finer grade of goods you must admit that will not take care of that class of goods.

MR. DALE. It has been my experience and the experience of others that the highest percentage of conversion cost is often found in the cheapest goods.

Senator SMOOT. That is not my own experience.

MR. DALE. The conversion cost does not sink as rapidly as does the value of the material.

Senator McCUMBER. Do you mean the comparative conversion?

MR. DALE. Yes; the comparative conversion. I think you will find that on a large number of low-priced fabrics the conversion cost or the proportionate conversion cost is larger than on many higher-priced fabrics.

Senator SMOOT. That is true if you have mixtures of waste in low-priced goods. I will not say mungo, but I mean wastes of all kinds made from odds and ends and everything. That is true in that kind of goods. For instance, the conversion of blankets does not amount to more than 50 per cent on account of the low stock and waste that is used. As to yarn and the thickness of the thread that is used, the same thing is true; but I am speaking now of your proposition here with reference to cloth.

MR. DALE. Yes.

Senator SMOOT. There is where you get into trouble. I suppose, of course, there has to be a dividing line somewhere that would mark that difference. You know that in past tariff bills—I will say this at least so far as I am personally concerned—the rates have been upon cloth sometimes higher than I actually knew was necessary on the ordinary cloth that everybody makes, but they were required to take care of each class of goods. Of course, under all the other bills that we passed, it applied to all alike. I wanted simply to call your attention to the fact that I believe that if we want to be a 50-50 country more than likely this would work, although I do not want to say that these percentages offered by you would be right. I did offer a tariff bill based upon that as a substitute for the Underwood-Simmons law. At that time I worked out the compensatory duty from wool to tops, from tops to yarn, and from yarn to cloth.

MR. DALE. Yes; I remember it. I think if you will call for the information which you should have and which I have suggested it will shed a great deal of light on this point that you have raised. We have used our best judgment in making these suggestions. You will find in my analysis of the Tariff Board's report in Schedule K, which has been published repeatedly in the Congressional Record, a list of 86 fabrics that were made in our mill. I arranged the fabrics according to value per pound, beginning with the lowest price, and placing opposite each one the percentage of cost for wool and for conversion. I think if you will look that over you will perhaps get some suggestions.

Senator SMOOT. I think that I have on my wall a map half as big as that case over there, with, I think, 110 samples of goods, made not only in this country but in foreign countries. Half were from this country and comparable goods were made in foreign countries. I have the cost of each as ascertained by the Tariff Board. As a matter of fact, I know I have it in my office.

Mr. DALE. AS I recall it, the Tariff Board gave us a report on the cost of converting wool into tops, tops into yarn, and yarn into cloth, but did not give a report on the cost of converting wool into yarn or wool into cloth. That was one of the defects in the report.

Senator SMOOT. They gave us the report from wool to tops, tops to yarn, and yarn to cloth.

Mr. DALE. Yes; but how are you going to get from that the percentage of wool to cloth when the yarn they are figuring on might not have gone into the cloth?

Senator SMOOT. You are speaking of conversion cost?

Mr. DALE. Yes.

Senator SMOOT. Well, that is true.

Senator LA FOLLETTE. In the examples which you presented in your analysis you had worked them out on the cloth actually manufactured, had you not? I am referring now to the eighty-odd samples of cloth actually manufactured in your factories.

Mr. DALE. Yes; and with the mill cost.

Senator LA FOLLETTE. They covered cloths of coarse texture?

Mr. DALE. Yes; they covered a wide range of goods.

Senator LA FOLLETTE. Fine goods as well?

Mr. DALE. Yes; they did.

Senator SMOOT. In the bill that I prepared I sent home and got my cost books at the mill, and it was upon these cost books that I figured the conversion, each step from wool to cloth.

Senator WALSH. Your own cost book?

Senator SMOOT. Yes; my own cost book.

Mr. DALE. I am afraid there is one defect in your costs. You did not mix enough low stock with your Utah wool.

Senator SMOOT. We did not use it.

Mr. DALE. The cost of converting low-grade stock into, say, 3-run yarn may be greater than the cost of converting a good grade of Utah wool into 3-run yarn. The same may be true of converting low-grade stock and Utah wool into fabrics.

Senator SMOOT. The conversion cost would be less, because I did not have as many breaks in the weave room in making the cloth from the filling, nor did I have as many breakdowns.

Mr. DALE. Nor in weaving.

Senator GOODING. Going back, Mr. Dale, to the sales of that scoured wool in London that, I think you said, sold for 8 cents a pound?

Mr. DALE. Yes; in small quantities.

Senator McCUMBER. In 1911?

Senator GOODING. Do you know anything about the condition that was in?

Mr. DALE. I do not know. I imagine it was scoured short wool, suitable for making good cloth; possibly it was scoured locks and pieces.

Senator SMOOT. I suppose it would come from tag-lock stuff, soaked out, discolored, and never should have been used for making anything except a mixture.

Senator GOODING. At 8 cents a pound?

Senator SMOOT. Yes.

Mr. DALE. I want to thank the committee and Senator Gooding for your patience and for the time you have given us.

